

COVERT BRAND COMMUNITIES:  
DOES PERSUASION KNOWLEDGE ACTIVATION INFLUENCE EVALUATIONS  
OF FACEBOOK HEALTH AND WELLNESS COMMUNITIES?

A Thesis Submitted to the College of  
Graduate and Postdoctoral Studies  
In Partial Fulfillment of the Requirements  
For the Degree of Master of Science  
In the Department of Management and Marketing  
University of Saskatchewan  
Saskatoon

By

ADAM D. SLOBODZIAN

## **PERMISSION TO USE**

In presenting this thesis in partial fulfillment of the requirements for a Postgraduate degree from the University of Saskatchewan, I agree that the Libraries of this University may make it freely available for inspection. I further agree that permission for copying of this thesis in any manner, in whole or in part, for scholarly purposes may be granted by the professor or professors who supervised my thesis work or, in their absence, by the Head of the Department or the Dean of the College in which my thesis work was done. It is understood that any copying or publication or use of this thesis or parts thereof for financial gain shall not be allowed without my written permission. It is also understood that due recognition shall be given to me and to the University of Saskatchewan in any scholarly use which may be made of any material in my thesis.

## **DISCLAIMER**

The use of GlaxoSmithKline (GSK), Pfizer, Novartis, Merck, American Diabetes Association, and MS Society were exclusively created to meet the thesis and/or exhibition requirements for the degree of Master of Science at the University of Saskatchewan. Reference in this thesis to any specific commercial products, process, or service by trade name, trademark, manufacturer, or otherwise, does not constitute or imply its endorsement, recommendation, or favoring by the University of Saskatchewan. The views and opinions of the author expressed herein do not state or reflect those of the University of Saskatchewan, and shall not be used for advertising or product endorsement purposes.

Requests for permission to copy or to make other uses of materials in this thesis in whole or part should be addressed to:

Head of the Department of Management and Marketing

PotashCorp Centre, 25 Campus Drive

University of Saskatchewan

Saskatoon, Saskatchewan S7N 5A7

Canada

OR

Dean

College of Graduate and Postdoctoral Studies

Room 116 Thorvaldson Building

110 Science Place

Saskatoon, Saskatchewan S7N 5C9

Canada

## ABSTRACT

Recent pharmaceutical marketing practices have incorporated more social media tactics in the form of unbranded social networking communities to promote, educate, engage, and monitor potential consumers. Current attention in this domain has focused mainly on regulated tactics such as company-controlled websites, while little attention has been given to unregulated communication tools such as social media, where much of the interaction is consumer to consumer. The purpose of this research is to test competing theories and assumptions of persuasion knowledge activation in a covert brand community, specific to the context of pharmaceutical marketing. Researchers and practitioners have argued over whether consumers will recognize a persuasion attempt in a covert setting, or will not recognize a persuasion attempt in a covert setting, but until now there has not been a conclusive answer. The results of this research showed that people do not recognize these tactics, either covert or overt, as persuasion attempts; we find no significant difference in participants' evaluations of health and wellness communities when branding is present versus when it is absent. This study also shows that priming for persuasion knowledge will activate consumers' persuasion knowledge and will result in lower evaluations of perceived trust, and lower intentions to use the information in the community. Employing an experimental design, these studies are an initial step in the debate on covert marketing's effects on persuasion knowledge and evaluations, specifically in the context of health and wellness communities on social media. The results also present interesting opportunities for theory, policy, and practice.

**Keywords:** Persuasion Knowledge; Covert Marketing; Covert Brand Community; Social Media

## **ACKNOWLEDGEMENTS**

First and foremost I would like to thank my supervising professor, Dr. Marjorie Delbaere, for her continuous support, guidance, and wisdom throughout my journey. Her door was always open to me whenever I ran into any problems, needed help clarifying my ideas, or needed direction on how to proceed. I have the deepest appreciation and gratitude for all that she has done for me, both as a graduate student, and as an undergraduate student, and recognize that I would not be here without her support.

Next I would like to thank my supervising committee, Dr. Monica Popa and Dr. Barb Phillips, for their academic and professional guidance and support throughout my experience at Edwards. Without their help and input on my research processes, experiment designs, and statistics, I would be lost. Thank you.

I would also like to acknowledge the support I have received from the entire college of Edwards School of Business. From the financial and travel assistance, to the extra printing credits, the college has always supported me during my time as a student, and I will be forever grateful for all that the college and the University of Saskatchewan has given me.

Finally, I would like to express my profound appreciation to my parents, Don and Anita Slobodzian, and to my partner, Bobby Lozinsky, for their unshakable support and endless encouragement throughout my many years as a student. This achievement would not be possible without them. Thank you.

Adam D. Slobodzian

## TABLE OF CONTENTS

PERMISSION TO USE.....	i
DISCLAIMER.....	i
ABSTRACT.....	iii
ACKNOWLEDGEMENTS .....	iv
1. INTRODUCTION.....	1
1.1 BACKGROUND .....	3
Figure 1.1.....	8
1.2 COVERT BRAND COMMUNITIES .....	8
1.3 PERSUASION KNOWLEDGE MODEL.....	11
1.4 RESEARCH QUESTIONS .....	13
2. STUDY 1 .....	15
2.1 BACKGROUND .....	15
2.2 METHODOLOGY.....	16
2.3 RESULTS .....	19
Table 2.1 .....	23
2.4 DISCUSSION .....	24
3. FOLLOW-UP STUDY .....	24
4. STUDY 2.....	26
4.1 BACKGROUND .....	26
Figure 4.1.....	28
4.2 METHODOLOGY.....	28

<b>4.3 RESULTS .....</b>	<b>31</b>
Figure 4.2.....	36
Figure 4.3.....	36
Table 4.1 .....	37
Table 4.2 .....	38
Figure 4.4.....	39
Figure 4.5.....	40
Figure 4.6.....	41
<b>4.4 DISCUSSION .....</b>	<b>42</b>
<b>5. CONCLUSION .....</b>	<b>45</b>
<b>Appendices.....</b>	<b>50</b>
Appendix A – Ethics Approval .....	50
Appendix B – Ethics Amendment.....	51
Appendix C – Study 1 Participant Consent Form .....	52
Appendix D – Study 1 Recruitment Poster.....	54
Appendix E – Script Study 1.....	55
Appendix F – Study 1 Stimuli: Logo Condition .....	56
Appendix G – Study 1 Stimuli: No Logo Condition.....	58
Appendix H – Study 1 Stimuli: Third Party Condition.....	60
Appendix I – Study 1 Questionnaire .....	62
Appendix J – Study 2 SSRL Participant Consent Message .....	65
Appendix K – Study 2 SSRL Recruitment Email .....	66
Appendix L – Script Study 2.....	67
Appendix M – Prime.....	68
Appendix N – Study 2 Stimuli: No Logo Condition.....	69

<b>Appendix O – Study 2 Stimuli: Pfizer Condition.....</b>	<b>71</b>
<b>Appendix P – Study 2 Questionnaire .....</b>	<b>73</b>
<b>Reference List.....</b>	<b>78</b>



## **1. INTRODUCTION**

Pharmaceutical marketing is currently going through an interesting period of transition in which many modern marketing tactics are being adopted in the pursuit of consumer engagement and brand affinity. Rather than building a presence for a particular brand or drug, pharmaceutical companies have started using unbranded social networking communities and content marketing to promote disease awareness and patient education. Though Canada prohibits most forms of direct to consumer advertising (DTCA), research has found that there is an extensive amount of cross border exposure from advertising directed to the United States (Law, Majumdar, and Sounerai 2008). However, pharmaceutical sites that do not promote a brand or product, but rather provide information on medical conditions, are not prohibited in countries that ban DTCA, like Canada (Law, Majumdar, and Sounerai 2008).

The use of unbranded pharmaceutical social network communities makes this type of marketing covert, as the controlling brand is not necessarily visible to consumers in most situations, and does not include the brand names of products or services offered by the company. Covert marketing has been defined as marketer-created material, which is disguised as impartial non-advertising information (Huh and Shin 2015). The key element in the definition of covert marketing is that the nature of the message, and/or source of the message, is disguised, hidden or not directly acknowledged when communicated to the consumer (Akdogan and Altuntas 2015; Milne, Bahl, and Rohm 2008). This area within marketing is intriguing because the recent research has had

trouble keeping up with the strategies that are being adopted in practice. Some academics have categorized this type of marketing as deceptive because it impedes consumers' ability to clearly recognise an advertisement and its sponsor (Wojdyski, Evans, and Hoy 2017). The U.S. Federal Trade Commission (FTC) considers a communication attempt to be deceptive "if [advertisers] mislead consumers into believing they are independent, impartial, or not from the sponsoring advertiser itself" (FTC 2015).

Covert marketing tactics have been proposed by Fransen, Verlegh, Kirmani, and Smit (2014) as a way for overcoming consumer advertising resistance strategies in order to prevent the activation of persuasion knowledge. They suggest that to prevent neutralizing or avoidance responses from consumers, marketers should disguise the "persuasive intent or sender of the message" (p 11). This is currently being done by pharmaceutical marketers through the promotion of content as help giving and educational material, by sharing content created by community members, and also by masking the pharmaceutical organization controlling the community. This content is often created by sponsored bloggers, members of the community, or by the pharmaceutical company itself. These tactics feature no, or very minimal, branding cues that indicate a particular company's involvement.

This form of covert communication shares many similarities with other tactics, such as sponsored content, also known as native advertising. However, as Wojdyski and Evans (2015) explain, native advertising is "any paid advertising that takes the specific form and appearance of editorial content from the publisher itself" (p 1). In addition to native

advertising, other ways in which marketers have used covert communications to work around consumer resistance to advertising messages is product placement (Campbell, Mohr, and Verlegh 2013). Campbell, Mohr, and Verlegh (2013) suggest that “placing products in entertainment or sponsoring bloggers” (p 483) is a way for marketers to “avoid activating consumers’ persuasion knowledge and scepticism” (p 483). When marketing messages are presented to a consumer in an entertainment context—such as covert online communities, product placement, or native advertising—it has been presumed that these attempts will be interpreted by consumers as entertainment, and therefore it will not activate their marketplace related knowledge (Cowley and Barron 2008). Though product placement pre-dates native advertising and content marketing, it relates to these covert online communities because the source of the communication attempt is obscured (Campbell, Mohr, and Verlegh 2013).

In covert online communities, brands are sharing their own content as well as encouraging opinion leaders and influencers to share content in the community where the source or sponsor of the message is not clearly stated, giving the impression that it is unsponsored non-marketing material. Right now, much of the research has been focused on the branded health information sites and consumer responses toward them (Huh and Shin 2015; Johnson and Lowe 2015).

## **1.1 BACKGROUND**

DTCA, which is currently legal only in the USA and New Zealand, is one of the most controversial topics in modern business (Liang and Mackey 2011; Scott Rader, Subhan,

Lanier, Brooksbank, Yankah, and Spears 2013) and one of the largest categories of advertising spending in the USA (Delbaere and Willis 2016; Law, Majumdar, and Sounerai 2008; Liang and Mackey 2011). Regulatory bodies, like the Food and Drug Administration (FDA) in the U.S., influence what drug companies can say over print and broadcast media to ensure promotional statements do not make claims that overstate benefits or understate risks involved in drug treatments (Scott Rader et al 2013).

The FDA (2015) has permitted three main types of drug advertisements in the USA and has specific content requirements for each type. The first type of ads are called “Product Claims Advertisements”, which explicitly name a drug and communicate its benefits and risks. These ads cannot be misleading, and the benefits and risks need to be presented in a “balanced fashion” (FDA 2015). The next type of ads are “Reminder Advertisements”; this type of ad assumes the audience knows of the drug and its uses, and therefore only names the drug. A reminder ad does not need to disclose risks, and therefore cannot suggest its uses or benefits (FDA 2015). The last type of ad is a “Help-Seeking Advertisement”, this type of ad describes a disease or condition, but does not make specific drug treatment recommendations (FDA 2015). A help-seeking ad can also include a drug company’s name (FDA 2015). Interestingly, the FDA states, “when done properly, help-seeking ads are not considered to be drug ads. Therefore we do not regulate them...” (FDA 2015).

Recently, DTCA has evolved with the rise in new forms of technology and communication; this technology has allowed consumers to become “more active in the

provision of their health care” (Scott Rader et al 2013, p 196) online. With the rise of health and drug information and promotion online, DTCA has become more global as information freely crosses borders through the Internet, which is an issue for many regulatory bodies (Law, Majumdar, and Sounerai 2008; Liang and Mackey 2011). Research by Law, Majumdar, and Sounerai (2008) showed that, though the impact of DTCA is “highly variable”, cross-border exposure to DTCA from the U.S. to Canada has influenced prescribing rates in some cases.

The evolution of electronic DTCA (eDTCA) has presented an interesting scenario for pharmaceutical marketing and regulatory bodies. Pharmaceutical companies are moving away from their own regulated drug information sites, and moving towards general health information sites, blogs, social networking sites, and online communities where ownership is unclear (Scott Rader et al 2013). This grey-area has caused trouble for the FDA, as little, or no, explicit cues of ownership are present on these sites. As Huh and Shin (2015) highlight, without clear indication of a pharmaceutical company’s involvement “such company-sponsored disease information websites are not considered advertising and, thus, not subject to the FDA regulation for DTC prescription drug advertising” (p 308).

Pharmaceutical marketers are adopting practices and tactics that are not typically associated with the health care industry, and these tactics and their effectiveness have not been adequately researched by marketing academia. As seen in the e-book published in 2015 by *Medical Marketing and Media*, titled *The Healthcare Brand Manager’s Guide to*

*Content Marketing*, pharmaceutical advertisers are being guided on how best to utilize content marketing on social media and how it can be integrated into pharmaceutical campaigns. Rather than pushing information on their prescription drugs, pharmaceutical advertisers are shifting the focus to emphasize educational content that engages their consumers.

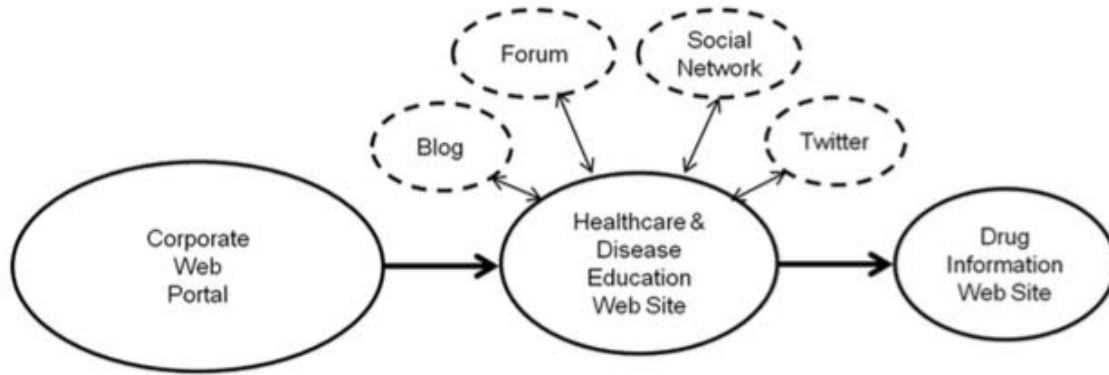
Companies do not mention specific treatment on social media, but rather focus on the disease or medical condition. For example, Pfizer has set up a health and wellness community group on Facebook called Quitter's Circle. This page shares information, tips, and support on quitting smoking but never overtly promotes a prescribed method of treatment. Pfizer is rarely mentioned on the page and there is also no mention of its drug *Chantix*, which is the leading prescribed medication for quitting smoking. This practice of keeping the brand covert when setting up health and wellness communities is becoming a popular tactic for industry leaders in the pharmaceutical sector.

Scott Rader et al (2013) suggested that pharmaceutical companies are not keeping up with the "unprecedented shift towards consumer empowerment" (p 211); they propose that pharmaceutical advertisers should begin to listen to and monitor consumers online using social media and keyword searches, and then analyze the results. Their initial suggestion was a passive means of tracking consumer-to-consumer conversations online by monitoring a brand's presence online, versus actively engaging with consumers online.

Scott Rader et al (2013) also proposed that beyond monitoring their brand's presence online, there is an opportunity for pharmaceutical advertisers to "link extant web-related marketing efforts in the form of disease education to the highly active and increasingly popular social media platforms where consumer bonding occurs" (215). Rather than just observing the conversations, pharmaceutical marketers are covertly engaging with consumers under the guise of unbranded online communities and wellness groups. The covert aspect of this communication is important because, as explained by Wojdyski, Evans, and Hoy (2017), the degree to which a sponsor and an advertisement are recognized as such can have an impact on consumer attitudes.

Scott Rader et al's (2013) Interaction Model (see Figure 1.1) is a clear and concise representation of the current online landscape of pharmaceutical marketing, and is presented as a constellation of outlets that are linked together by pharmaceutical companies. This unique form of communication allows pharmaceutical companies to navigate constraints by passing nonspecific disease education information through social media, promoting consumer bonding (Scott Rader et al 2013).

**Figure 1.1**  
**Interaction Model (Scott Rader et al 2013)**



This Interaction model is also an accurate representation of where academic research has been focused. Currently, research has focused on the areas of healthcare education websites, and drug information websites (Huh and Shin 2015; Johnson and Lowe 2015). This was valuable to better understand these online pharmaceutical marketing methods, but little has been done to explore the online social network health and wellness communities, which is the focus of this research. As Rotfeld (2008) explains, much of the covert marketing undertaken by professionals is done with a great amount of uncertainty of whether it really works; this research will be a much needed first step into the effectiveness of these covert marketing attempts.

## **1.2 COVERT BRAND COMMUNITIES**

The online health and wellness communities that pharmaceutical companies are creating and managing are the focus of this research, in part because they have been largely overlooked by much of the online pharmaceutical marketing research. Though these



communities use covert tactics that often keep the parent pharmaceutical brand hidden, they do resemble conventional brand communities. These *covert brand communities* are specialized groups, with participants that are non-geographically bound and have a shared consciousness with unique rituals and traditions (McAlexander, Schouten, and Koenig 2002; Muniz and O'Guinn 2001).

A marketplace ritual is defined as “a planned, symbolic, performative and often repeated activity that providers execute for and with customers, to enhance customer experiences and achieve marketing goals” (Otnes, Ilhan, and Kulkarni 2012, p 367). Examples of unique rituals and traditions in these covert brand communities include things such as providing members of a Type II diabetes community—*America's Diabetes Challenge*—with healthy recipes and alternatives around holidays that involve eating. Another example is during high stress holidays, reminding members of a quitting smoking community—*Quitter's Circle*—of their original motivation for quitting to keep them on track during high stress periods and encouraging members to share their stories when they have reached a milestone. Otnes, Ilhan, and Kulkarni (2012) have highlighted that topics such as holidays, and life passages, especially from a consumer's perspective, are important subjects within marketplace rituals. The main difference is that these groups focus on a covert service or idea rather than a branded one. These covert online communities present an interesting consumption scenario for branding research as well.

These communities are made up of members that share common experiences, seek information, and participate and interact of their own will. In these groups members share

and consume knowledge and experience to improve the well being of other members and themselves (Johnson and Lowe 2015). The social sharing and consuming of similar ideas and information adds to the common goals and consciousness that build brand communities (Johnson and Lowe 2015; Muniz and O’Guinn 2001).

As highlighted by Johnson and Lowe (2015), another aspect of these online communities is that they serve an important functional benefit to members that goes beyond the social benefits of the group. The functional benefits that these groups offer are vital to the pharmaceutical company that runs the pages, because they include things like health related learning, understanding the disease and symptoms, and potential solutions. These functional benefits do not only happen when the organization communicates with the consumers, this also happens when consumers communicate their experiences and expertise with each other (Johnson and Lowe 2015). As seen in the 2016 article from *branchannel* by Nicole Diamant, people in these communities weren’t “just looking for content—they were looking for people with similar experiences”.

An important factor in these strategies, as mentioned, is that these pages focus on promoting educational content and disease awareness in an unbranded setting, often partnering with 3<sup>rd</sup> party advocacy groups or established support organizations. Though co-branding attempts and brand alliances can result in both positive and negative evaluations (Cunha, Forehand, and Angle 2015; James 2005), partnering with a category relevant 3<sup>rd</sup> party advocacy group would most likely result in stronger positive associations towards the covert brand community. Simonin and Ruth (1998) show that

this is due to potential “spillover effects” of positive associations towards the 3<sup>rd</sup> party group, onto both the covert brand community and the partnering pharmaceutical brand. In addition, when viewing this type of marketing content, peoples’ persuasion knowledge is not necessarily activated because they are likely to be in a casual and unconstrained mental state when an “ulterior motive is not highly accessible” (Campbell and Kirmani 2000, p 72). Another tactic that is used is the recruitment of opinion leaders who share their content. This is another relevant point with regards to persuasion knowledge activation, because messages received by peers may not be perceived as persuasion attempts (Chu and Kim 2011).

### **1.3 PERSUASION KNOWLEDGE MODEL**

The Persuasion Knowledge Model (PKM) has an important role in this research. The PKM proposes that “consumers develop knowledge about persuasion and others’ persuasion attempts and delineates how people develop and use this knowledge” (Campbell and Kirmani 2008, p 551). This model addresses a consumer’s knowledge about persuasion attempts, and how they react in order to achieve their own goals (Campbell and Kirmani 2008; Friestad and Wright 1994; Friestad and Wright 1999; Wright 1986; Ham, Nelson, and Das 2015). A person’s persuasion knowledge (PK) develops and changes over time with more marketplace experience and information, and can be a way for consumers to recognize, interpret, and respond to advertisements or marketer’s attempts to persuade (Huh and Shin 2015). Friestad and Wright (1994) further clarify that the effects of persuasion knowledge activation can be either positive or

negative, and that a persuasion attempt can be anything “designed to influence someone's beliefs, attitudes, decisions, or actions” (p 2).

Persuasion knowledge has a very broad scope and many factors play important roles in the interaction between a “persuasion target” and “persuasion agent”. These factors include beliefs about a marketer’s persuasion goals, beliefs about persuasion tactics, and one’s own coping behaviours (Campbell and Kirmani 1994; Ham, Nelson, and Das 2015). PK has been described as multi-dimensional and context specific, as there are many different ways to measure and activate someone’s PK (Ham, Nelson, and Das 2015). Past research has shown that covert persuasion attempts can result in positive evaluations when perceived as appropriate (Isaac and Grayson 2016; Wei, Fischer, and Main 2008). The key factor of importance in covert marketing is that when viewing a covert persuasion attempt, consumers may not pick up on important cues that inform them of the true intent of the persuasion attempt (Wojdyski, Evans, and Hoy 2017).

As Campbell and Kirmani (2008) have explained, belief and suspicion of motives is an important part of PK, and in the context of covert marketing, research has yet to show if sponsorship cues in a covert setting will activate suspicion and PK or evade PK activation. Recent research in advertising and product placement (Cowley and Barron 2008; Isaac and Grayson 2016) has also assumed priming for suspicion of ulterior motives will result in differences in evaluations, but have yet to show its relationship with PK activation through research. This is important because by only showing that priming people for suspicion of ulterior motives will result in different evaluations, it cannot be

said conclusively that it is PK that influences this relationship, or that this effect is the result of a person's PK being activated. This assumption accepts an important relationship between PK activation and outcome variables that has yet to be shown in research.

## **1.4 RESEARCH QUESTIONS**

The driving theory behind this research is persuasion knowledge—including marketplace metacognition (Campbell and Kirmani 2000; Campbell and Kirmani 2008; Friestad and Wright 1994; Fransen et al 2015; Ham, Nelson, and Das 2015; Wright 1986; Wright 2002). PK research on covert tactics where the transparency of an advertising sponsor is less clear (Wojdysky, Evans, and Hoy 2017) such as native advertising (Wojdysky and Evans 2015) and product placement (Cowley and Barron 2008; Campbell, Mohr, and Verlegh 2013; Wei, Fischer, and Main 2008) has provided a good starting point for investigating this new type of covert tactic. The context of this research is within pharmaceutical marketing online, where there is a clear disconnect between the tactics that are being practiced in industry, and research that has been conducted. This leads to the primary research questions:

- A. Is persuasion knowledge activated in a covert brand community?
- B. Does activating persuasion knowledge influence member evaluations of, and intentions to use, information in Facebook health and wellness communities?

Answering these research questions is important for both practice and academia because it requires testing competing ideas, common assumptions, and analyzing tactics that have not previously been researched. Because consumers are now more active in their search

for online health information (Huh and Shin 2015), it is important that we research the ways companies are trying to persuade potential consumers online, and if their new tactics work as assumed. In the domain of pharmaceutical covert brand communities, we do not yet know of the relationship between persuasion knowledge activation and its effect on evaluations. Therefore, we cannot say if this tactic can be used to avoid a consumer's persuasion resistance coping behaviours, or if this tactic will be judged as appropriate and result in positive evaluations.

The use of this tactic in the pharmaceutical domain is also an area of policy that is not clearly defined. This is because the focus of these communities is on help seeking and disease awareness, which when done properly, are less restrictive (FDA 2015; Huh and Shin 2015). Without knowing how these tactics work, it can be hard to speculate how policy can adapt to these new tools online (Milne, Bahl, and Rohm 2008). Additionally, with the use of any covert tactic there is an ethical dimension that needs to be considered by marketers when intentionally omitting important information that could influence consumers' evaluations and behaviours. As Wojdyski, Evans, and Hoy (2017) explain, consumers' existing guides for interpreting advertisements may not function effectively in the context of covert marketing attempts versus when consumers evaluate traditional advertising; thus, more research is needed on this covert tactic.

## **2. STUDY 1**

### **2.1 BACKGROUND**

Research on persuasion knowledge in the area of covert and deceptive marketing has not shown conclusive evidence that PK will be activated in an online setting. Some research points to the fact that PK should be activated because suspicion of ulterior motives will be triggered by the presence of marketing stimuli or cues (Campbell and Kirmani 2008; Cowley and Barron 2008; Wei, Fischer, and Main 2008). Research also shows that when cognitive capacity is unconstrained, as when casually viewing social media, there is a higher likelihood of PK activation (Campbell and Kirmani 2008; Friedstad and Wright 1994; Main, Dahl, and Darke 2007). Huh and Shin (2015) highlight the importance of questioning whether ownership information would change consumers' evaluation and responses to sponsored information, further saying that they thought it likely would.

Other research points to that fact that the covert nature of the unbranded communities is designed to prevent PK from being activated (Campbell, Mohr, and Verlegh 2013; Fransen et al 2015; Laran, Dalton, and Andrade 2011), and that presenting consumers with a persuasion stimulus in an entertainment context will evade PK activation (Cowley and Barron 2008). Industry professionals have admitted that they use these tactics in order to promote disease awareness, and gain brand affinity, especially when their company is the market leader. In these cases, it has been acknowledged that disease promotion would eventually lead to increased sales (Huh and Shin 2015).

Much of the earlier attention in the online pharmaceutical domain has focused on company controlled communication such as corporate web portals, and drug information sites—which are both regulated—leaving an important and growing area of research focusing on tools such as social media that play an important role in consumer to consumer interaction (Scott Rader et al 2013; Tyrawski and DeAndrea 2015). With that in mind, Rotfeld (2008) explains that most covert efforts are undertaken with great uncertainty, and more research is needed to see whether these tactics will activate PK, or evade PK activation. Therefore, no hypotheses were developed for this study, as the goal is to test two competing ideas by addressing the following question: Is persuasion knowledge activated in a covert brand community?

## **2.2 METHODOLOGY**

An experiment with a 3 (brand community: branded vs. unbranded vs. 3<sup>rd</sup> party) x 2 (chronic disease: multiple sclerosis ‘MS’ vs. Type 2 diabetes) between-subjects design was conducted to answer our research question. Participants were undergraduate students from a large North American university. Study one was reviewed and approved on ethical grounds by the Behavioural Ethics Research Board at the University of Saskatchewan (See Appendix A).

We chose two chronic diseases as the context for this research because these diseases have a greater daily impact and are more central to peoples’ lives than many other medical conditions; as a result, people who suffer from chronic diseases often share and bond with others who are experiencing similar conditions (Huh and Shin 2015). All



participants read a scenario in which they were asked to imagine they had been recently diagnosed with a chronic disease and were members of an online community. We selected MS and Type II diabetes as the diseases for this study because of their prevalence in our geographic region, the fact that both diseases are treated with prescription medication, and that each disease had a popular online community sponsored by a large pharmaceutical company. We chose to include two types of chronic illnesses to control for any effects that a specific illness might have on consumers' perceptions of the communities. After reading the scenario, participants viewed screen shots of an actual Covert Brand Community on Facebook that had been modified to represent our experimental conditions. We used actual posts and comments from an online MS community sponsored by Novartis, and an online diabetes community sponsored by Merck (See Appendix E for scenario and Appendix F, G, and H for stimuli).

To ensure equivalency we edited the screen shots so that the Facebook pages had the same number of likes, the posts had the same number of comments, and the pages in the branded condition included the logo from the same pharmaceutical company (GlaxoSmithKline). We used the logos from the Multiple Sclerosis Society and the American Diabetes Association for the 3<sup>rd</sup>-party condition. A post exposure questionnaire was administered to participants after reading the scenario and the stimuli. As Ham, Nelson, and Das (2015) explain, there are many different and effective ways to research and measure persuasion knowledge. Like much of the research on persuasion knowledge, the measurements that were chosen focus on the differences in a target's evaluation of a persuasion attempt.

Because the nature of PK is complex and context specific, multiple scales were adapted and used to measure PK, as recommended by Ham, Nelson, and Das (2015). *Persuasion Knowledge Activation* was measured using two multi-item scales adapted from Campbell and Kirmani (2000) and Wang et al (2008), and two open-ended response questions also adapted from Campbell and Kirmani (2000). Campbell and Kirmani's (2000) scale measured perceived sincerity by using an average of four seven point semantic differential items: sincere/insincere, honest/dishonest, not manipulative/manipulative, and not pushy/pushy and formed our first measure of PK activation (Appendix I Question 3). The second PK activation measure was adapted from Wang et al's (2008) agreement statements which measured participants' attitudes towards important dimensions of persuasion knowledge on a 7-point agreement scale: information accuracy, information trustworthiness, and perceived influence (Appendix I Question 4a-d). We included a measure of credibility because it has been identified as an important factor in health information and Internet groups. *Perceived Website Trust* was also measured using a 7-point agreement scale adapted from Huh and Shin (2015) (Appendix I Questions 5-11).

Using the thought-listing measure adapted from Campbell and Kirmani (2000) (Appendix I Questions 1 and 2), participants were asked to write down what they were thinking when viewing the Facebook community; these open-ended responses were then coded for suspicious thoughts. Suspicious thoughts included any thoughts indicating suspicion about aspects of the stimuli, such as motives, ulterior intent, the source of the community, or the content on the community page. The proportion of suspicious thoughts was

analyzed in relation to the total thoughts that were listed, and used as another measure of persuasion knowledge activation (Campbell and Kirmani 2000).

## 2.3 RESULTS

A total of 183 students voluntarily participated in the study ranging in age from 18 to 30 years old ( $M_{\text{age}} = 20.41$ , 52.7% female, 3.6% preferred not to say) recruited from an introductory marketing course. Students were randomly assigned to a condition, and each condition had a minimum of 29 participants to ensure adequate power for the analyses. There were 90 respondents in the MS condition ( $N_{\text{MS}} = 90$ ) and 93 respondents in the diabetes condition ( $N_{\text{Diabetes}} = 93$ ). There were 61 respondents in the logo condition ( $N_{\text{Logo}} = 61$ ), 60 respondents in the no logo condition ( $N_{\text{No Logo}} = 60$ ), and 62 respondents in the 3<sup>rd</sup> party condition ( $N_{\text{3rd Party}} = 62$ ). Our analysis revealed that 82.4% of all respondents indicated that they had gone online to look up health-related information. The top identified sites for referencing health information online were Google (29.2%), WebMD (20.8%), and Health Canada (20.6%). Facebook was well below, being identified as a health information reference by only 4.3% of respondents.

When asked about the purpose of the Facebook group, 34.5% of respondents viewed the group's primary purpose as member support, 32% stated that the group's purpose was for health promotion/education, and 27.5% of people stated that the purpose of the group was for connecting people and sharing information about the disease. Only 4.7% of people thought the purpose of this group was related to pharmaceutical promotion and/or market

research. There were no significant differences in how people viewed the purpose of the community between both logo and disease conditions ( $p > 0.05$ ).

To check our logo manipulation participants were asked if they recalled seeing a logo on the page. In the branded condition, significantly more participants recalled having seen a logo than not (69%;  $p = 0.006$ ). In the 3<sup>rd</sup> party condition slightly more people recalled seeing a logo than not; however, the difference was non-significant (yes = 57%, no = 43%;  $p = 0.341$ ). In the unbranded condition, there were no significant differences between the percentage of participants who recalled seeing a logo versus not (yes = 44%, no = 56%;  $p = 0.488$ ). If participants indicated that they recalled seeing a logo, we asked them to indicate which logo. While there were no significant differences, several participants in the unbranded condition indicated having seen either the Facebook logo or the name of the Facebook page, both of which were present on the screen shot. This could explain why so many participants in the unbranded condition recalled having seen a logo. Given that none of these participants indicated that they recalled having seen a pharmaceutical company logo, we believe this is evidence of a successful manipulation.

Two independent coders analyzed the thought listings from all participants. A total of 517 thoughts were coded as either suspicious, not suspicious, or not relevant ( $M_{Thoughts/Person} = 2.83$ ). Suspicious thoughts included thoughts such as: “posts felt like sponsored ads” and “helpful links posted; but are they credible?”, and not suspicious thoughts included thoughts such as: “It's nice to belong to a group where I can relate with other people” and “I feel a sense of community”. All disagreements were resolved through discussion.

Cohen's Kappa was calculated to determine inter-rater reliability and revealed a high level of inter-rater reliability ( $\kappa = 0.87$ ). The analysis revealed there was no significant difference in the number of suspicious thoughts across all conditions ( $M_{Logo} = 0.76$ ,  $M_{NoLogo} = 0.81$ ,  $M_{3rd Party} = 0.76$ ;  $p > 0.05$ ).

A scale reliability analysis was conducted to ensure each item in the questionnaire sufficiently measured what it was intended to measure. Cronbach's Alpha for the first PK measure ( $\alpha = 0.727$ ) showed that each item in the scale did an adequate job of measuring what was intended; therefore we can further analyze PK using this measure. Our scale reliability analysis of the second PK measure yielded a Cronbach's Alpha of  $\alpha = 0.682$  revealing that the scale was not an accurate measure for PK. Further analysis showed that the item measuring "perceived influence" was very low on inter-item correlation and the adjusted Cronbach's Alpha if that item was deleted increases to  $\alpha = 0.842$ . Therefore, in the analysis of our second PK measure, the "perceived influence" item was removed. The scale reliability analysis of perceived website trust showed a high level of accuracy in the scale measurements ( $\alpha = 0.876$ ), meaning that we will use this total measure when analyzing perceived website trust.

Levene's test for our scale item measures revealed the assumption of homogeneity of variances was not violated ( $p > 0.05$ ). To test for the assumption of normality the Kolmogorov-Smirnov test was used for each scale measure between the logo conditions. The second PK measure and the measure for perceived website trust did not violate the assumption of normality ( $p > 0.05$ ). The Kolmogorov-Smirnov test for the first PK

measure revealed a violation in this assumption ( $p < 0.05$ ); however, because parametric tests are fairly robust against minor failures of non-normality, the sample size was large, group sizes were relatively equal, and a visual inspection of the Q-Q plots showed only slight deviations in the graph, this violation in normality was ignored and parametric tests were used in all cases (Field 2013; Marshall n.d.).

Our results showed no significant differences between disease conditions on any of our measures ( $p > 0.05$ ) and therefore the disease conditions were combined for the rest of the analyses. Our analysis found no significant differences between any of the conditions for all PK activation measures ( $p > 0.05$ ). A measure of perceived website trust (adapted from Huh and Shin 2015) similarly showed that the presence of a pharmaceutical company logo did not influence participants' perceptions of the trustworthiness of the Facebook community and the information on it ( $p > 0.05$ ). This study shows that persuasion knowledge is not necessarily activated in a covert brand community in a health context (See Table 2.1).

**Table 2.1****Descriptive Statistics for PK activation (measure 1) and Perceived Website Trust**

<i>Disease Cond.</i>	<i>Logo Cond.</i>	<i>Mean (PK 1)</i>	<i>SD (PK 1)</i>	<i>Mean (Perceived Trust)</i>	<i>SD (Perceived Trust)</i>
	Logo	5.20	1.12	4.30	1.09
	No Logo	5.32	1.12	4.30	1.21
	Third Party	5.40	.81	4.00	.97
	Logo	5.05	1.09	4.12	1.08
	No Logo	5.06	1.11	4.31	1.10
	Third Party	5.03	.95	4.27	.97
	Logo	5.13	1.10	4.21	1.08
	No Logo	5.18	1.11	4.30	1.15
	Third Party	5.21	.90	4.14	.97

We found that consumer attitudes did not differ significantly when pharmaceutical branding was present versus absent. This result lends support to the argument that consumers do not view these covert brand communities as persuasion attempts, as some academics (Fransen et al 2015; Laran, Dalton, and Andrade 2011) and industry professionals have speculated. Very similar to the results of Wojdyski and Evans' (2015) study on native advertising, which found that most people did not recognize the sponsored content as advertising, these covert persuasion attempts in brand communities appear to go largely unnoticed by consumers. They also do not result in the typically sceptical outcomes of PK activation, which, in the context of pharmaceutical marketing, has important ethical and policy implications.

## **2.4 DISCUSSION**

Though some researchers have thought that consumers have the ability to recognize and correct for covert persuasion attempts, our results show that this covert persuasion attempt is not being recognized. This result adds legitimacy to the concern that covert marketing tactics will go undetected and can be used as a way to avoid PK activation, which has been speculated by industry professionals and some researchers. The objective of this research was to address the debate on PK activation in a covert setting, which until now had not produced a conclusive answer.

## **3. FOLLOW-UP STUDY**

In order to address two of the alternative explanations in our first study, a follow-up study was conducted in an extension of the first study. Using only one disease condition and an older sample population, two sets of brand community stimuli were created; one with GlaxoSmithKline branding cues from study 1, and the other with Pfizer branding cues. The goal of this study was to see if an older population would have different perceptions of covert brand communities, and if the presence of an alternative pharmaceutical brand—Pfizer—would influence people’s evaluations of the community.

Our follow up study had 30 participants ranging in age from 21 to 55, ( $M_{age} = 36.38$ ). 53% of participants were female, 43% were male. In order to test if more participants recalled seeing a logo in each condition, Fisher’s exact test was conducted to test for significant differences between categorical groups (Field 2013). This test found that



significantly more people recalled seeing a logo in the Pfizer condition (86.7%) than in the GlaxoSmithKline condition (50%) ( $p = 0.05$ ). Of the people who recalled seeing a logo in the Facebook group, and correctly identified the organization's logo, there were no significant differences in familiarity of the organization between groups ( $M_{Pfizer} = 4.1$ ,  $M_{GSK} = 2.0$ ,  $p = 0.166$ ).

This study found that on average, participants were more skeptical of the Facebook community when Pfizer's branding was present ( $M_{Pfizer} = 3.68$ ,  $SD_{Pfizer} = 1.25$ ), versus when GSK's branding was present ( $M_{GSK} = 4.68$ ,  $SD_{GSK} = 1.34$ ). This difference ( $MD = -1$ , 95% CI [0.02973, 1.9727], was significant  $t(28) = 2.11$  ( $p = 0.044$ ). This could be because more people recalled seeing a logo in the Pfizer condition, and so their persuasion knowledge towards the Facebook group was activated resulting in lower evaluations, which is indicative of higher skepticism.

Several findings from study 1 and the follow-up study were used to inform study 2. First, because the first study found no significant differences between disease conditions ( $p > 0.05$ ), the subsequent study focused on one chronic illness condition. Next, with no differences in the 3<sup>rd</sup> party branding condition ( $p > 0.05$ ), though an interesting avenue for future research, this condition was dropped for the following study. Lastly, as a result of the follow-up study, the next study uses branding cues from Pfizer rather than GSK, as more people recalled the Pfizer logo in that condition.

## **4. STUDY 2**

### **4.1 BACKGROUND**

The purpose of study 2 is to answer the second research question: Does activating persuasion knowledge influence member evaluations of, and intentions to use, information in Facebook health and wellness communities? Thus, the objective of study 2 is to analyze peoples' PK activation, evaluations, and behavioural intentions when viewing a Covert Brand Community after being primed for PK. This study extends the findings of study 1, addresses some of the limitations of study 1, and incorporates components from recent research. Analyzing evaluations such as perceived website trust, attitude towards Pfizer, and behavioural intentions will produce practical insights into the effectiveness of these strategies.

Recent research has shown that priming consumers to consider the appropriateness of persuasion attempts can result in positive evaluations. This is a departure from most research on persuasion knowledge, which has largely found negative evaluations as a result of priming. What most studies of persuasion knowledge have in common, however, is that once they confirm that a prime activates persuasion knowledge in a pre-test, they typically do not test for activation in subsequent studies. A goal for study 2 is to include a measure of PK activation in our model and test its effect as a mediator on evaluations and behavioural intentions. Another important relationship tested in study 2 is whether or not branding cues will moderate the relationship between PK activation and evaluations and intentions. According to the results of Isaac and Grayson (2016), when consumers were

primed to consider the appropriateness of persuasion attempts, and were then exposed to a credible persuasion tactic, there was a positive impact on evaluations. By making consumers aware of the existence of covert health and wellness communities on social media, and then exposing them to a community that displays the sponsoring brand, we believe that there could also be a positive influence on evaluations and intentions. We therefore hypothesize that:

H<sub>1</sub>: When PK is activated and Pfizer's branding is present, participants will have higher evaluations as well as greater intent to use the information versus when PK is activated and no branding is present.

H<sub>2</sub>: When PK is not activated and when Pfizer's branding is present, we expect there to be lower evaluations and lower intent to use information versus when branding is present and PK is activated.

We expect that PK activation, paired with Pfizer's branding, will result in higher evaluations because research has found that when participants perceive a tactic as appropriate and have higher brand familiarity they will have greater evaluations (Wei, Fischer, and Main 2008). Because we found that more participants recognized Pfizer rather than GSK, we expect more people to notice Pfizer's branding. Thus, when a participant's PK is activated, rather than having negative evaluations, we would expect people to recognize the branding cues and consider the tactic appropriate because they would expect a pharmaceutical brand to be marketing disease awareness, and therefore

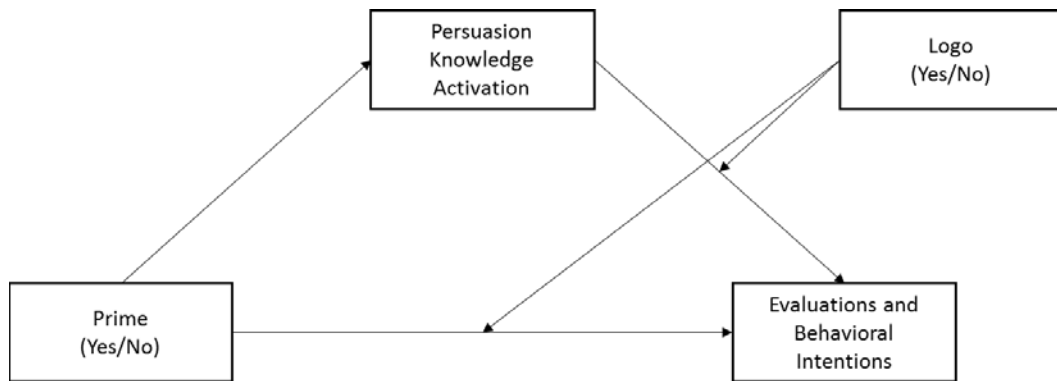
have higher evaluations. However, when participants are not primed to be aware of a persuasion attempt, we expect the presence of Pfizer's branding to be judged as inappropriate, and result in lower evaluations versus when their PK is activated.

H<sub>3</sub>: When PK is not activated, we expect there to be no difference between logo conditions.

Similar to the findings of our first study, we hypothesize that when PK is not activated, we will find no differences in participants' evaluations or behavioural intentions between the logo conditions.

**Figure 4.1**

**Hypothesized Model**



## 4.2 METHODOLOGY

Study 2 is designed as a 2 (Logo vs. No Logo) x 2 (PK Prime vs. No Prime) between subjects experiment design. Because our first study found no significant differences between disease conditions, our second study focused on only one chronic illness, Type II diabetes. This study also dropped the 3<sup>rd</sup> party condition as no differences were found

in the first study. The Social Sciences Research Laboratories (SSRL) at the University of Saskatchewan recruited participants online from across Canada using a research panel from Ekos. Ekos recruits participants using random digit dialling; once recruited, they are added to Ekos' research panel and are contacted when a research opportunity is made available. All participation was voluntary, and the participants were not compensated. The University of Saskatchewan once again approved the study on ethical grounds (See Appendix B).

Once again participants read a scenario, however this time the scenario either included a prime for PK or no prime. Isaac and Grayson's (2016) research provided a starting point for developing a prime. Upon further consultation with additional experts, a neutral prime was developed to ensure the prime would not produce demand effects (See Appendix M). Participants then viewed screenshots of a covert brand community on Facebook similar to the ones used in study 1. For study 2 we decided to use the pharmaceutical brand Pfizer rather than GSK as more people noticed it in our follow-up study. As with our first study, to ensure equivalency, both versions of the Facebook group had the same wall posts, same number of likes, and same comments. The only difference between conditions was the presence of Pfizer's branding. In this study, the Facebook group was an altered version of Merck's community—*America's Diabetes Challenge*, however all Merck branding was either removed or replaced with Pfizer's depending on the condition. We also altered and re-named the group to *Diabetes Challenge* in order to reflect the Canadian population that would be surveyed.

Our second study used the same two multi-item scales from the first study to measure PK activation: Campbell and Kirmani's (2000) perceived sincerity scale (Appendix P Question 3) and an adapted version of Wang et al.'s (2008) agreement statements measuring participants' attitudes (Appendix P Question 4a-d). Additionally, the same two open ended questions adapted from Campbell and Kirmani (2000) were used again as well (Appendix P Questions 1 and 2). Huh and Shin's (2014) agreement scale on *perceived website trust* was once again used (Appendix P Questions 5-11), and Huh and Shin's (2014) agreement scale on *intent to use information* was also added in order to measure the dependent variables of perceived trust and behavioural intentions (Appendix P Question 12 i-vi).

When dealing with chronic illnesses, self-efficacy plays important roles in people's lives (Bandura 1994; Delbaere and Willis 2015; Ritter and Lorig 2014). Bandura (1994) defines self-efficacy as "people's beliefs about their capabilities to produce designated levels of performance that exercise influence over events that affect their lives" (p 2). Interaction with support groups online and membership in covert brand communities may be a source of perceived influence over community members' own disease self-management. Self-efficacy of managing a chronic illness is also a predictor of future behaviour (Bandura 1994; Ritter and Lorig 2014). A Self-Efficacy for Managing Chronic Disease scale was also adapted from Ritter and Lorig (2014), and Delbaere and Willis (2015), to measure participants' beliefs that being an active member of this community can help manage symptoms related to their chronic illness (Appendix P Question 14).

A brand evaluation measure of Pfizer was also included in the measurements to analyze how participants perceived Pfizer and whether this influenced the results. Manipulation checks were included for community sponsorship, presence of logo, and group membership. Frequency of social media use and online health information use, and demographic information were also measured. (See Appendix P for questionnaire)

### **4.3 RESULTS**

A total of 165 participants from across Canada who had been diagnosed with Type II diabetes participated in our online study. In order to participate in this experiment, respondents had to indicate whether they had been diagnosed with Type II Diabetes. If they did not report a diagnosis, these people were screened out and did not complete the study. All participants reported being highly familiar with Type II Diabetes ( $M = 6.11$ , on a 7-point scale), and this did not differ between conditions ( $p > 0.05$ ). Participants ranged in age from 28-84 years old ( $M_{age} = 60.84$ , 6.7% preferred not to report their age) and 46.1% of the respondents were female (0.6% other, 0.6% preferred not to say). 66.9% of the participants in the study reported using social media at least once a day, 20% once a month or less, and 13.9% reported never using social media. A majority of the participants (86.1%) reported going online for health information, 26.7% reported visiting an online support group, and 12.7% of participants had joined an online support group.

Participants spent an average of 12.11 minutes completing our questionnaire, the minimum time spent on the questionnaire was 4.38 minutes, and the maximum was 37.4

minutes. In our open-ended responses, participants averaged 1.67 thoughts per person, the minimum number of thoughts was 1, and the maximum was 6 thoughts. Participants' knowledge towards Pfizer, and attitudes towards Pfizer were not significantly different across groups ( $p > 0.05$ ) indicating that our manipulations did not influence peoples' views or knowledge of Pfizer.

A factor analysis of the scale measures revealed that the adapted agreement statements from Wang et al (2008), which were our second persuasion knowledge measure, had scale items that were highly correlated with two other measures. The first two scale items (Appendix P Questions 4a and 4b) were correlated with our first PK measure of scepticism from Campbell and Kirmani (2000) and the last two items (Appendix P Questions 4c and 4d) were correlated with Huh and Shin's (2014) perceived website trust scale.

The first two items of the agreement statements measured credibility and accuracy of information, which have also been used as measurements of persuasion knowledge (Ham, Nelson and Das 2015; Hibbert, Smith, Davies, and Ireland 2007; Isaac and Grayson 2016). Because measurements of PK often measure many related dimensions such as skepticism, credibility, manipulative intent, believability, deceptiveness, etc. (Ham, Nelson and Das 2015), the addition of two more relevant scale items was an appropriate solution. Therefore, when analyzing PK activation we combined the first two items of Wang et al's (2008) agreement statements measuring credibility and accuracy of information (Appendix P Question 4a and 4b) with Campbell and Kirmani's (2000) PK



measure of scepticism (Appendix P Question 3) to overcome this problem. All subsequent analyses used this combined measure for PK activation.

The last two items of the agreement statements measured trust in the information in the community (Appendix P Question 4c), and trust in the people in the community (Appendix P Question 4d), which were highly correlated with Huh and Shin's (2014) perceived website trust measure (Appendix P Questions 5-11), which was already being used. To fix this issue, the two items from the second persuasion knowledge measure were combined with their more appropriate measures of perceived website trust, and the second PK measure was not used in the analyses.

A scale reliability analysis was then conducted on each updated measure to ensure all scales items measured what they were supposed to. This analysis revealed a high Cronbach's Alpha for each measure ( $\alpha_{\text{Combined PKA}} = 0.914$ ,  $\alpha_{\text{Combined Trust}} = 0.969$ ,  $\alpha_{\text{Intent}} = 0.928$ ,  $\alpha_{\text{Self Efficacy}} = 0.927$ ).

When asked what participants believed the purpose of the group was, 24.2% believed it was for general health promotion, awareness, and education; 20.6% believed the community was for community member support, 18.8% did not know what the purpose was; 17.6% believed it was to connect people who had been affected by the illness and share information and stories; and 12.7% thought it was for pharmaceutical promotion or research.

Two independent coders analyzed the open-ended responses from all participants. All disagreements were resolved through discussion. Cohen's Kappa was calculated to determine inter-rater reliability and revealed a high level of inter-rater agreement ( $\kappa = 0.949$ ). An independent samples Kruskal-Wallis test was used to analyze mean differences in total number of thoughts per group. This test showed that there was no significant difference in number of unique thoughts per group ( $M_{\text{Prime/Logo}} = 1.33$ ,  $M_{\text{Prime/No Logo}} = 1.76$ ,  $M_{\text{No Prime/Logo}} = 1.76$ ,  $M_{\text{No Prime/No Logo}} = 1.84$ ,  $p = 0.106$ ).

Our manipulation checks confirmed that significantly more people reported seeing a logo in the Pfizer condition versus in the no logo condition ( $p = 0.003$ ); therefore we can conclude there was a successful logo manipulation. The membership manipulation yielded a mean value near the midpoint of the scale ( $M_{\text{membership}} = 3.085$ ), indicating no extreme feeling for, or against, membership in the community. This was expected, as participants only viewed screenshots of a community, rather than interacting, liking, sharing, or posting within the community, which may yield higher feelings of membership.

Our second manipulation checks looked at participant skepticism using ratio of suspicious thoughts to total thoughts per condition, and Campbell and Kirmani's (2000) PK measure between the prime conditions. A one-way ANOVA was conducted to analyze the ratio of suspicious thoughts per condition and found no significant mean differences in suspicious thoughts per condition ( $M_{\text{Prime/Logo}} = 0.3095$ ,  $M_{\text{Prime/No Logo}} = 0.3895$ ,  $M_{\text{No Prime/Logo}} = 0.3415$ ,  $M_{\text{No Prime/No Logo}} = 0.3087$ ,  $p > 0.05$ ). Our analysis of the

persuasion knowledge activation scale items found that when primed for PK, participants were more sceptical of the covert brand community ( $M_{Prime} = 4.408$ ), versus when they were not primed ( $M_{No Prime} = 4.852$ ,  $p = 0.043$ ), indicating the activation of persuasion knowledge. Though there was no difference in suspicious thoughts per condition, our scale item identified persuasion knowledge activation, which signals a successful manipulation.

To test hypothesis 1 and 2, a moderated-mediation analysis was conducted using Hayes' PROCESS procedure for SPSS. The analysis was set up to test the moderating (conditional) effects of the presence or absence of branding cues on the mediating (process) effect of persuasion knowledge activation. The analysis revealed a non-significant moderating effect of the logo condition and mediating effect of persuasion knowledge activation on perceived trust ( $p > 0.05$ , CI [-0.0346, 0.1551]), and behavioural intentions ( $p > 0.05$ , CI [-0.1038, 0.1459]). This non-significant result indicates that Hypotheses 1 and 2 are not supported, as there were no intervening effects of presence of logo on evaluations or behavioural intentions (See Figure 4.2 and 4.3, and Table 4.1).

Figure 4.2

Mediated-Moderation Analysis for Perceived Website Trust

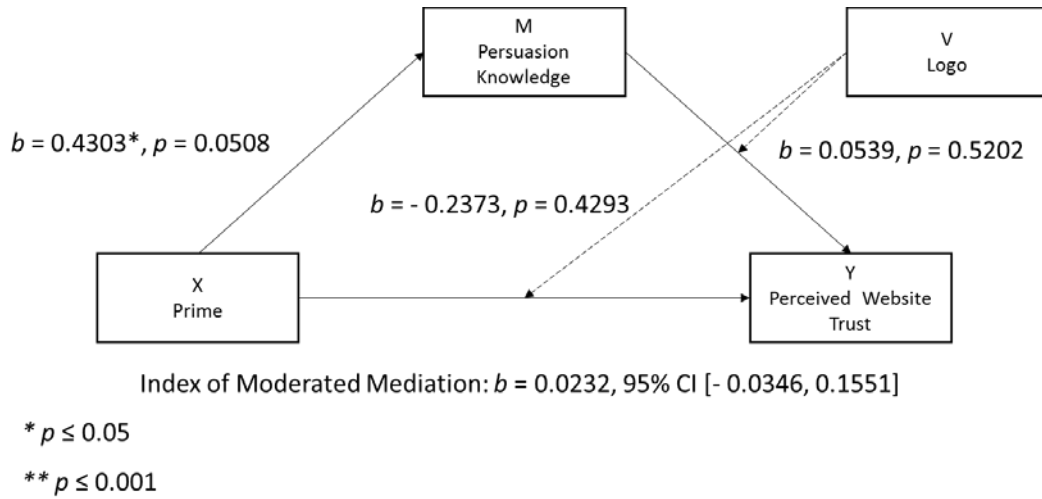
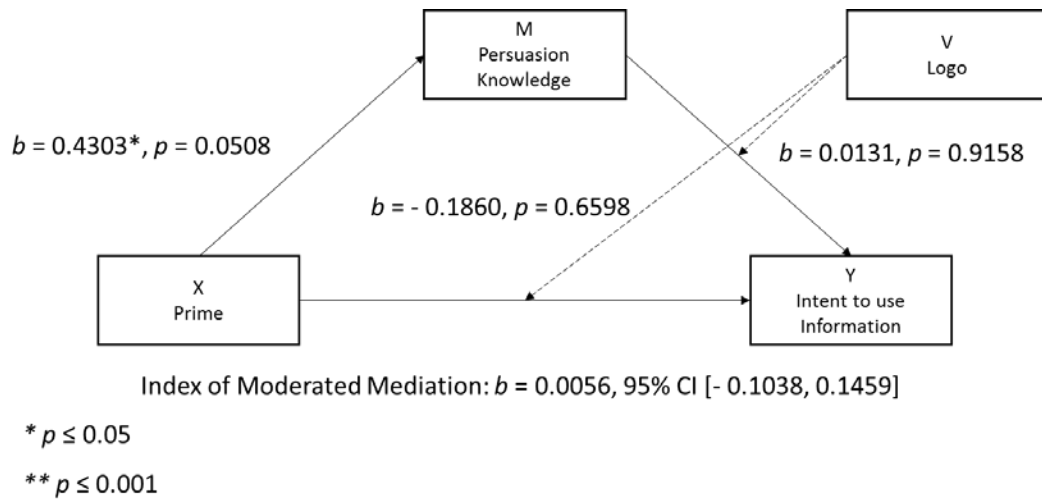


Figure 4.3

Mediated-Moderation Analysis for Intent to use Information



**Table 4.1**  
**Descriptive Statistics for group differences with PK activation**

<i>Measure</i>	<i>Condition</i>	<i>Mean</i>	<i>SD</i>
	Logo	3.87	1.48
	No Logo	3.50	1.55
	Logo	3.28	1.64
	No Logo	3.12	1.64
	Logo	4.08	2.16
	No Logo	4.07	2.44

This result is consistent with our findings from study 1, and the findings of Wojdyski and Evans' (2015) study on native advertising. The presence of branding cues did not influence participant evaluations, which lends further support to the logic that consumers do not view covert brand communities as persuasion attempts. The results from this study address concerns about the undergraduate population that was being tested in our first study, by showing the same results in an older population that has been diagnosed with Type II diabetes.

To test Hypothesis 3 an ANOVA was conducted on participants whose PK was not activated. This analysis found no differences on perceived website trust ( $M_{\text{Logo}} = 4.640$ ,  $M_{\text{No Logo}} = 4.283$ ,  $p = 0.285$ ), Intent to use Information ( $M_{\text{Logo}} = 3.976$ ,  $M_{\text{No Logo}} = 3.833$ ,  $p = 0.704$ ), and self-efficacy ( $M_{\text{Logo}} = 4.821$ ,  $M_{\text{No Logo}} = 4.75$ ,  $p = 0.889$ ). This finding, which is consistent with study 1, shows support for Hypothesis 3 (See Table 4.2).

**Table 4.2**

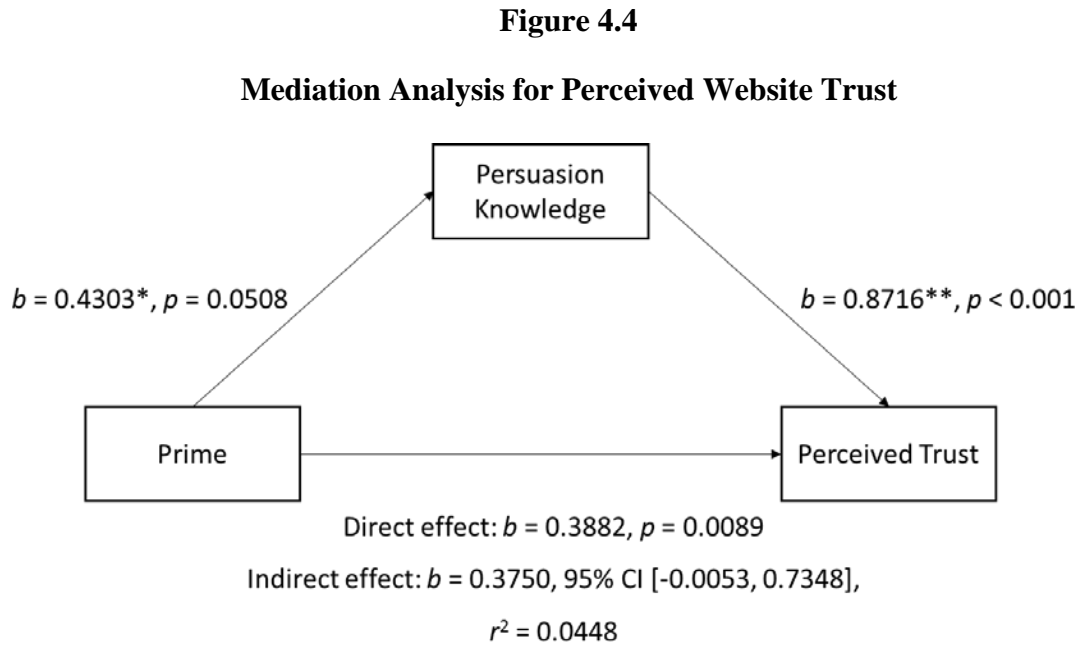
**Descriptive Statistics for group differences with no PK activation**

<i>Measure</i>	<i>Condition</i>	<i>Mean</i>	<i>SD</i>
	Logo	4.66	1.39
	No Logo	4.31	1.70
	Logo	3.98	1.73
	No Logo	3.83	1.71
	Logo	4.82	2.20
	No Logo	4.75	2.46

Interestingly, participants' perceived self-efficacy for managing their symptoms was marginally significant between the prime conditions ( $p = 0.051$ ). Participants in the prime condition reported lower self-efficacy for managing their symptoms versus in the no prime condition ( $M_{\text{Prime}} = 4.075$ ,  $M_{\text{No Prime}} = 4.786$ ).

In order to achieve the main objective of our study, which was to answer our second research question— does activating persuasion knowledge influence member evaluations of, and intentions to use, information in Facebook health and wellness communities? — several mediation analyses were conducted. The mediation analyses were carried out using Hayes' PROCESS procedure for SPSS as recommended by Field (2013).

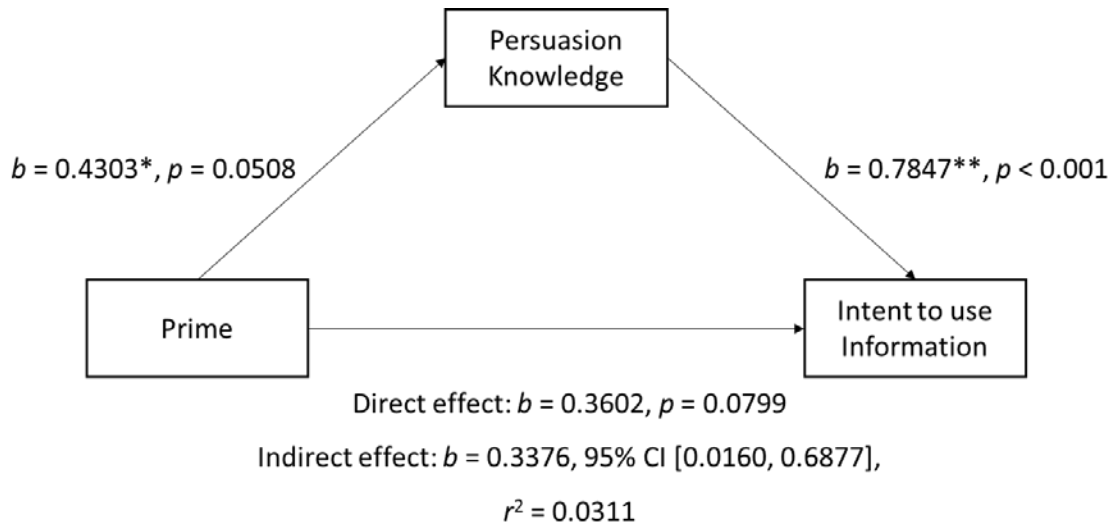
This first analysis showed a non significant indirect (process) effect of priming on perceived trust through persuasion knowledge activation ( $b_{\text{Indirect\_Trust}} = 0.3750$ , CI [-0.0053, 0.7348]), and a significant direct effect of priming on perceived trust ( $b_{\text{Direct\_Trust}} = 0.3882$ , CI [0.0986, 0.6779]) which represents a small effect size ( $r^2 = 0.0448$ , 95% CI [0.0008, 0.1240] See Figure 4.4).



The second mediation analysis revealed a fully mediated and significant indirect effect on intent to use information through persuasion knowledge activation ( $b_{\text{Intent}} = 0.3376$ , CI [0.0160, 0.6877]). This effect represents a small effect size ( $r^2_{\text{Intent}} = 0.0311$ , 95% CI [0.0007, 0.0955] See Figure 4.5).

**Figure 4.5**

**Mediation Analysis for Intent to use Information**



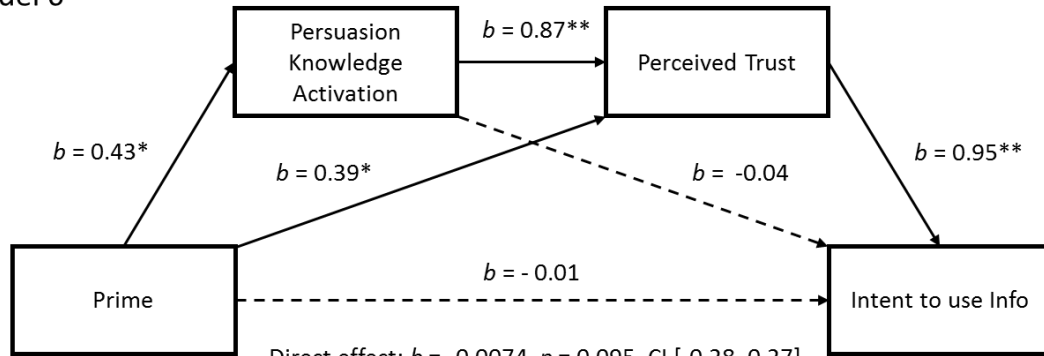
Further examination of the relationships between persuasion knowledge, trust, and behavioural intentions led us to conduct an additional mediation analysis to see if perceived trust, in addition to persuasion knowledge activation, influenced peoples' intent to use the information on the Facebook community. This exploration was designed as a double mediation analysis to test if both persuasion knowledge activation and perceived website trust mediated the relationship between priming for persuasion knowledge and behavioural intent. This analysis showed a significant fully mediated indirect effect of priming on behavioural intention through persuasion knowledge activation and perceived trust ( $b_{\text{indirect}} = 0.3551, 95\% \text{ CI } [0.0109, 0.7131]$ ). The multiple mediation analysis also showed a significant path of priming on intent to use information through perceived trust ( $b_{\text{Indirect trust}} = 0.3676, 95\% \text{ CI } [0.1006, 0.6540]$ ). (See Figure 4.6)



**Figure 4.6**

**Mediation Analysis for multiple mediators**

Hayes' PROCESS Macro  
Model 6



Path 1: (Prime → PK → Intent)  $b = -0.0174, CI [-0.1467, 0.0538]$

Path 2\*: (Prime → PK → Trust → Intent)  $b = 0.3551, CI [0.0109, 0.7131]$

Path 3\*: (Prime → Trust → Intent)  $b = 0.3676, CI [0.1006, 0.6540]$

\*  $p \leq 0.05$

\*\*  $p \leq 0.001$

Taken together, these results answer our second research question and show that perceived trust and persuasion knowledge activation both play important roles in determining if people will use the information on a covert brand community. When participants' PK is activated, people are more skeptical ( $M_{\text{Prime}} = 4.408, M_{\text{No Prime}} = 4.852, p = 0.043$ ), and as a result they trust the community less ( $M_{\text{Trust/Prime}} = 3.683, M_{\text{Trust/No Prime}} = 4.461, p = 0.001$ ), and have lower intentions to use the information in the covert brand community ( $M_{\text{Intent/Prime}} = 3.200, M_{\text{Intent/No Prime}} = 3.904, p = 0.008$ ). Therefore we can conclude that activating persuasion knowledge does influence evaluations and behavioural intentions in Facebook health and wellness communities.

## 4.4 DISCUSSION

The results from study 2 show that persuasion knowledge is activated when using a prime, and influences peoples' perceived trust of the covert brand community and behavioural intentions toward the information in the covert brand community. These results show that though participants had identified the logo on the Facebook page, this had no significant effect on their evaluations or intentions. This is particularly interesting because it shows that the presence of branding cues will not significantly impact peoples' perceived trust of the covert brand community, or their intentions to use the information presented in the community.

This study further supports the idea that covert tactics will go unrecognized by consumers (Fransen et al 2015; Laran, Dalton, and Andrade 2011). This research also tests the long held assumption that priming persuasion knowledge leads to differences in evaluations and intentions. Our findings show that the relationship between a prime and differences in evaluations is mediated by the activation of PK. This result shows that the prime is not the reason why consumers have differences in evaluations and intentions; the prime activates a consumer's PK, which is the reason for difference in evaluations and intentions. This important relationship needs to be taken into consideration in the planning of future research involving priming for PK.

The use of real screenshots from an actual covert brand community and an actual pharmaceutical brand was to increase the realism of the stimuli in the experiment (Delbaere and Willis 2015). One limitation of this study is that participants could not

interact with the covert brand community; they were only able to view a screenshot of the community before answering questions. It is likely that evaluations of the community would be positive if participants were able to join and interact with the community over a period of time.

We speculate that evaluations would be more positive because of the impact of factors such as bonding and homophily have on consumers' experiences in online communities (Chu and Kim 2011; Scott Rader et al 2013; Wang et al 2008). Wang et al's (2008) study, which looked at health information online and peer-to-peer influence on websites versus discussion groups, measured the impact of variables like homophily on the perceived credibility and the evaluation of the health information. Homophily is described as "the degree of perceived similarity a receiver ascribes to a message source" (Wang et al 2008, p 359). In a setting such as a covert brand community where most of the community members have shared experiences with a chronic illness it is likely that members would have higher levels of homophily because of the perceived similarity of experience with their peers (Scott Rader et al 2013). Interestingly, the authors found that participants with higher levels of homophily had more positive evaluation of the health information, and were therefore more likely to act on it (Wang et al 2008). This finding leads us to speculate that studying members of a covert brand community who had interacted with the community over time will have higher evaluations.

Because this research showed no significant effect of branding, future research should also prime for branding, or test to see if the source of the information i.e. recommended

by a doctor, will change peoples' evaluations. Future studies should continue to analyze Covert Brand Communities by exploring recent developments in this area concerning sponsorship transparency (Wojdyski, Evans, and Hoy 2017), and perceived tactic appropriateness (Isaac and Grayson 2016).

Another limitation that could have influenced the results in both studies is the language used in the script that preceded the stimuli, which asked participants to imagine they were members of the Facebook community. We recognize that “giving” participants membership to these communities before viewing the stimuli could have made them feel invested in the group, and therefore may have resulted in demand effects in participants' evaluations. Evaluations may have been less favourable if participants had been instructed to imagine they had been recently diagnosed and were looking for communities to join, rather than to imagine they were already members of the community. In order to address this limitation, future research should expand on these findings to examine whether group membership plays a factor in influencing consumers' attitudes and PK activation in these covert settings. Researchers should also look into the role that age plays in PK activation; older consumers have likely been exposed to more health issues than younger consumers and this could lead to a heightened sensitivity to persuasion attempts in this domain.

These results are also important for concerns about the large gap in regulation surrounding media that facilitate consumer-to-consumer communication, and the accuracy of drug claims and influence of disease education on social media. With much

of these activities still unregulated, it is important that we take a deeper look into what regulation is required to protect consumers. The potential consequences of leaving these channels unrestricted are dangerous from an ethical standpoint, because as we have seen, consumers do not recognize pharmaceutical companies' persuasion attempts on these media channels.

Future research should also give more attention to the co-branding aspect of pharmaceutical marketing that was briefly addressed in our first study. Looking at the dynamics of persuasion knowledge between pharmaceutical organizations and third party groups like the American Diabetes Association would provide interesting insight for theory and practice.

## **5. CONCLUSION**

Overall, this research shows that unless primed to be thinking about persuasion attempts, consumers do not recognize Covert Brand Communities as persuasion attempts, even with the presence of branding cues. These results are consistent with Fransen et al's (2015), Laran, Dalton, and Andrade's (2011), and Wojdyski and Evans' (2015) view that covert attempts go largely unnoticed. This research also shows that evaluations and intentions of covert attempts are mediated by a consumer's persuasion knowledge activation.

This has several implications for theory, practice, and policy. Concerning theory, the findings from these studies add valuable insight to the area of covert pharmaceutical

marketing. As Huh and Shin (2015) have highlighted, consumers today are more active and engaged in obtaining health information online, making it important to research the ways pharmaceutical companies are utilizing their online marketing tools and their effects on consumers. Without explicit transparency of the community sponsor, or without persuasion knowledge activation, consumers are more trusting and have higher intentions of using the information from covert brand communities versus when their knowledge of persuasion is activated. For future research in the area of covert marketing and PK, our results show the important indirect relationship between priming, PK activation, and evaluations and intentions. This relationship needs to be incorporated into future experiment and manipulation design, and model development when looking at differences in evaluations due to a prime for PK.

For practice, this research confirms the idea that covert brand communities can be used as a way to increase consumer evaluations and behavioural intentions by avoiding consumers' persuasion resistance strategies. Ethically however, one needs to consider if the use of these tactics for pharmaceutical organizations falls in line with the AMA's code of conduct for marketers. This ethical code of conduct states that marketers should avoid "harmful actions or omissions by embodying high ethical standards and adhering to all applicable laws and regulations" and we should also avoid "deception in product design, pricing, communication, and delivery of distribution" (ama.org). The use of this tactic also violates Laczniaak and Murphy's (2006) principle of nondeception which states "marketers ought to never intentionally mislead or unfairly manipulate consumers" (p 165).

Though the use of this tactic has no clear policy guidelines, there is a distinct omission being made by pharmaceutical companies who do not clearly disclose their involvement with these covert brand communities. This distinct omission is also something that the FTC would consider deceptive marketing: “regardless of the medium in which an advertising or promotional message is disseminated, deception occurs when consumers acting reasonably under the circumstances are misled about its nature or source, and such misleading impression is likely to affect their decisions or conduct regarding the advertised product or the advertising” (FTC 2015).

As Laczniaak and Murphy (2006) explain in their guiding article on marketing ethics, “...organizations always should strive to exceed the legal minimums of social compliance” (p 159). They further describe how ethics undertakes greater duties and obligations than just following the minimum required laws, and argue that even the AMA’s code of ethics are simply the basic criteria of what society expects of marketers. Rather than operating in a grey area of regulation, especially in the pharmaceutical domain, marketers need to go beyond the required legal minimums and refrain from what Laczniaak and Murphy (2006) would consider a “socially troubling marketing practice” (p 159).

With that being said, these finding also raise an important policy issue: should online pharmaceutical marketing—which has fewer regulations—have more explicit disclosure of involvement and sponsorship? Because a potential disclosure may activate consumers’

suspicion, this may result in lower evaluations and behavioural intentions as our research has shown. However, if no disclosure is present, as we have seen, consumers will not recognize these tactics as persuasion attempts even if branding cues are present.

Though most of the points raised have been critical of covert brand communities, there are several positive outcomes of these groups for both the company and the consumer. Pharmaceutical companies benefit from this tactic by facilitating greater two-way communication with their target audiences. This can be an effective way of establishing a relationship with consumers, developing goodwill for the pharmaceutical brand, communicating disease and treatment knowledge, and eventually increasing sales (Scott Rader et al 2013). Pharmaceutical companies also have the ability to influence the content, information, and dialogue that occurs within their community, which allows them to better follow regulation, and to direct consumer conversations.

Ethical considerations aside, covert brand communities do provide value for their members. These communities consolidate and link to disease and symptom treatment information that has value for people who are affected by an illness. These communities are also a platform for people who are seeking information, sharing information, or sharing their experiences with others who have had similar experiences, and seek emotional support (Johnson and Lowe 2015; Scott Rader et al 2013). Often, consumers experiencing similar health related challenges would view themselves as an in-group, and bond as members of a community (Johnson and Lowe 2015). Accordingly, one of the sources of cocreated value in these communities is the consumer bonding—the



connection to the community and the unity among members—that happens in a covert brand community (McAlexander, Schouten, and Koenig 2002; Muniz and O’Guinn 2001; Scott Rader et al 2013).

In conclusion, the studies presented here test competing theories and assumptions of covert marketing and persuasion knowledge in the context of pharmaceutical covert brand communities. Extending Huh and Shin’s (2015) research on pharmaceutical DTC websites, this research explores an area of Scott Rader et al’s (2013) model (Figure 1.1) that has been largely overlooked by research—social media use by pharmaceutical companies. Most research has looked at company-controlled websites, but none have looked at company-sponsored communication on social media platforms where regulations are less clear. This research is a first step into this area, which is an important tool used in combination with company controlled websites. Future research should explore the other areas identified by Scott Rader et al (2013) beyond Facebook, such as Twitter, online forums, and blogs.

# Appendices

## Appendix A – Ethics Approval



Behavioural Research Ethics Board

### ***Certificate of Approval***

PRINCIPAL INVESTIGATOR  
Marjorie Delbaere

DEPARTMENT  
Edwards School of Business

BEH#  
16-346

INSTITUTION(S) WHERE RESEARCH WILL BE CONDUCTED  
City of Saskatoon

STUDENT RESEARCHER(S)  
Adam Slobodzian

FUNDER(S)  
UNFUNDED

TITLE  
Social Media Health and Wellness Study

ORIGINAL REVIEW DATE  
28-Sep-2016

APPROVAL ON  
14-Oct-2016

APPROVAL OF:  
Application for Behavioural Research Ethics  
Review  
Recruitment Poster  
Participant Consent form  
Pilot Study: Experiment 1

EXPIRY DATE  
13-Oct-2017

Full Board Meeting ☐

Date of Full Board Meeting:

Delegated Review ☒

#### **CERTIFICATION**

The University of Saskatchewan Behavioural Research Ethics Board has reviewed the above-named research project. The proposal was found to be acceptable on ethical grounds. The principal investigator has the responsibility for any other administrative or regulatory approvals that may pertain to this research project, and for ensuring that the authorized research is carried out according to the conditions outlined in the original protocol submitted for ethics review. This Certificate of Approval is valid for the above time period provided there is no change in experimental protocol or consent process or documents.

Any significant changes to your proposed method, or your consent and recruitment procedures should be reported to the Chair for Research Ethics Board consideration in advance of its implementation.

#### **ONGOING REVIEW REQUIREMENTS**

In order to receive annual renewal, a status report must be submitted to the REB Chair for Board consideration within one month prior to the current expiry date each year the study remains open, and upon study completion.

Please refer to the following website for further instructions: <http://research.usask.ca/for-researchers/ethics/index.php>

## Appendix B – Ethics Amendment



UNIVERSITY OF  
SASKATCHEWAN

Behavioural Research Ethics Board (Beh-REB)

### ***Certificate of Approval Study Amendment***

PRINCIPAL INVESTIGATOR  
Marjorie Delbaere

DEPARTMENT  
Edwards School of Business

Beh #  
16-346

INSTITUTION(S) WHERE RESEARCH WILL BE CARRIED OUT  
City of Saskatoon                      Online Survey

STUDENT RESEARCHER(S)  
Adam Slobodzian

FUNDER(S)  
UNFUNDED

TITLE  
Social Media Health and Wellness Study

APPROVAL OF  
Revised Instructions Script for Participants

APPROVED ON  
07-Mar-2017

CURRENT EXPIRY DATE  
13-Oct-2017

Full Board Meeting ☐

Delegated Review ☒

#### **CERTIFICATION**

The University of Saskatchewan Behavioural Research Ethics Board (Beh-REB) is constituted and operates in accordance with the current version of the Tri-Council Policy Statement: Ethical Conduct for Research Involving Humans (TCPS 2 2014). The University of Saskatchewan Behavioural Research Ethics Board has reviewed the above-named research project. The proposal was found to be acceptable on ethical grounds. The principal investigator has the responsibility for any other administrative or regulatory approvals that may pertain to this research project, and for ensuring that the authorized research is carried out according to the conditions outlined in the original protocol submitted for ethics review. This Certificate of Approval is valid for the above time period provided there is no change in experimental protocol or consent process or documents.

Any significant changes to your proposed method, or your consent and recruitment procedures should be reported to the Chair for Research Ethics Board consideration in advance of its implementation.

#### **ONGOING REVIEW REQUIREMENTS**

In order to receive annual renewal, a status report must be submitted to the REB Chair for Board consideration within one month prior to the current expiry date each year the study remains open, and upon study completion. Please refer to the following website for further instructions: <http://research.usask.ca/for-researchers/ethics/index.php>

## **Appendix C – Study 1 Participant Consent Form**

**You are invited to participate in a research study entitled:**

**“Social Media Health and Wellness Study”**

**Researcher(s):** Adam Slobodzian, Graduate Student. Edwards School of Business.  
[adam.slobodzian@usask.ca](mailto:adam.slobodzian@usask.ca)

**Supervisor:** Dr. Marjorie Delbaere, Department of Management and Marketing,  
Edwards School of Business. 306-966-5916 [delbaere@usask.ca](mailto:delbaere@usask.ca)

*If you have any questions or concerns please contact one of the researchers.*

### **Purpose and Objectives of the Research:**

- The aim of the study is to gain insight into the effectiveness of social media health and wellness communities.

### **Procedures:**

- You will be asked to first read a scenario and then a social media post.
- After reading both the scenario and the post, you will be asked to answer a questionnaire about what you have read, which should take approx. 10-15 minutes to complete.
- Please feel free to ask any questions regarding the procedures and goals of the study.

### **Potential Risks**

- There are no known or anticipated risks to you by participating in this research.

### **Compensation:**

- To thank you for your time, please help yourself to some Halloween treats on your way out.

### **Confidentiality:**

- You will not be asked to provide any identifying information on the questionnaire, and your data will be treated as confidential. There may be limits to confidentiality, however, due to the group setting of this study. The researchers and participants may therefore be aware of the identities of the other participants in the study.
- Although the data from this research project will be published and presented at conferences, the data will be reported in aggregate form, so that it will not be possible to identify individuals. Please do not put your name or other identifying information on the questionnaire.
- All data will be stored in a locked office on campus and on a password-protected server maintained by the University of Saskatchewan; only the research team will have access to the files. Once the data is no longer needed it will be shredded in a secure facility.

### **Right to Withdraw**

- Your participation is voluntary and you can answer only those questions that you are comfortable with. You may withdraw from the research project for any reason, at any time without explanation or penalty of any sort.
- Should you wish to withdraw your academic status in this course will not be affected.
- Should you wish to withdraw it will not be possible to remove your data once it has been submitted to the researcher, as no identifying information will be recorded on the questionnaire.

**Follow up:**

- At the end of this study the research will be used and reported in the master's thesis of Adam Slobodzian. To obtain results of the study please contact one of the researchers.
- This research may also be reported in the form of an academic journal article and an academic conference presentation.
- This research project has been approved on ethical grounds by the University of Saskatchewan Research Ethics Board. Any questions regarding your rights as a participant may be addressed to that committee through the Research Ethics Office [ethics.office@usask.ca](mailto:ethics.office@usask.ca) (306) 966-2975. Out of town participants may call toll free (888) 966-2975.

**Consent**

By completing and submitting the questionnaire, your free and informed consent is implied and indicates that you understand the above conditions of participation in this study.

*A copy of this consent will be left with you.*

## Appendix D – Study 1 Recruitment Poster



### Participants Needed for Research on Social Media Health Communities

- We are looking for volunteers to take part in a study on Facebook Health and Wellness Communities.
- As a participant in this study, you will be asked to take part in a 10-15 minute questionnaire.
- In appreciation of your time you will be given Halloween candy.

For more information on this study please contact:  
Adam Slobodzian, [adam.slobodzian@usask.ca](mailto:adam.slobodzian@usask.ca)

This study has been reviewed by and received approval through the Research Ethics Office,  
University of Saskatchewan.

[www.usask.ca](http://www.usask.ca)

## **Appendix E – Script Study 1**

Imagine that you've recently been diagnosed with [Disease]. Your doctor has recommended a course of treatment that you are following, but you are still left with unanswered questions about the disease, how it will impact your life and where to get support. Following your diagnosis, you joined an online health and wellness community on Facebook called [Community] that is made up of members like you who are all affected in some way by this disease. This community regularly posts information about living with the disease, support, lifestyle and exercise routines, contests for giveaways, and suggestions for how to manage the disease yourself. You are not sure who has created this group but there are many active members who have become very close because of this community.

You are an active member of this community and you often read, share, and like the published posts, and interact with other members.

Flip to the next page and imagine that you are viewing recent posts from this community.

## Appendix F – Study 1 Stimuli: Logo Condition

The image is a screenshot of the Facebook page for "Living Like You". The page layout includes a left-hand navigation menu with links to Home, About, Photos, Community Guidelines, Likes, Videos, and Posts. A green "Create a Page" button is located below the menu. The main content area features a large profile picture of a group of people standing with their backs to the camera, looking out at the ocean. Below the profile picture is a post from "Living Like You" dated December 2, 2015. The post text reads: "Watch as doctors and others living with MS describe their treatment journey. Get the link on the Treatment Discussion Tab: <http://ssshare.it/yZmU>". The post includes a video player with a blue background and white text that says "Get a firsthand perspective" above an icon of three stylized figures. The post has 57 likes and 14 shares. Below the post is a comment section with a "Write a comment..." prompt. To the right of the main content area is a sidebar with a "Health/Medical/Pharmaceuticals" category, a search bar for posts on the page, and information about 17,304 likes and 20 chat messages. Below this is an "ABOUT" section with a description: "If you're here, you're likely impacted by MS. We welcome you to join the conversation, with GSK and share your hopes and dreams, beyond MS." It also includes links to ask for the page's address, phone, and hours, and a website link: <http://www.LivingLikeYou.com/>. At the bottom of the sidebar are sections for "APPS" (Community Guidelines) and "PHOTOS" (a grid of small images).





Like Comment Share

306

Top Comments

75 shares



Write a comment...



Mary Devereux Just was told my Ms is not compatible with my job head wrecking

Like · Reply · October 13, 2015 at 3:11am



Living Like You So sorry to hear that, Mary.

Like · Reply · October 13, 2015 at 6:55am



Irma Meiers a lot of difference!!

Like · Reply · 1 · October 9, 2015 at 10:31am

View 5 more comments



Living Like You

October 12, 2015 ·

In need of some kitchen inspiration? Check out our recommendations for cookbooks that will be friendly to your MS and taste buds! <http://www.livinglikeyou.com/.../brain-food-a-guide-to-ms-fri...>



Living and Cooking Healthy with Multiple Sclerosis – Living Like You

Brain Food: A Guide to MS-Friendly Cookbooks

BIT.LY

Like Comment Share

258

63 shares



Write a comment...



Living Like You

December 4, 2015 ·

When "If it was fun, it wouldn't be called work" doesn't cut it: Tips for staying motivated at work:

<http://www.livinglikeyou.com/.../job-getting-you-down-dos-and...>



VIDEOS



VISITOR POSTS



David Brown

September 3 at 3:00pm

BBC.. Cancer treatment for MS patients gives 'remarkable' results...

Like · Comment



Curt Ehlinger

August 1 at 5:20pm

I am part of an 18 person, 3,100 mile relay team across America this... See More

1

Like · Comment



Nina Triadafilidi

July 20 at 8:37am

Great initiative.. Thank you !

1

Like · Comment

LIKED BY THIS PAGE



GSK Medical & Health

Like

English (US) · Français (Canada) · Español · Deutsch

Privacy · Terms · Advertising · Ad Choices · Cookies · More  
Facebook © 2016

## Appendix G – Study 1 Stimuli: No Logo Condition

The screenshot displays the Facebook interface for the 'Living Like You' page. The top navigation bar includes the Facebook logo, a search bar, and user profile icons. The page header features a large cover photo of a diverse group of people standing with their backs to the camera, looking out at a sunset. Below the cover photo is a row of interaction buttons: 'Like', 'Message', 'Save', 'More', and a prominent blue 'Send Message' button.

The left sidebar contains the page's name 'Living Like You' with the handle '@LivingLikeYou', a 'Home' tab, and a list of menu items: 'About', 'Photos', 'Community Guidelines', 'Likes', 'Videos', and 'Posts'. A green 'Create a Page' button is located at the bottom of this sidebar.

The main content area shows a post from 'Living Like You' dated December 2, 2015. The post text reads: 'Watch as doctors and others living with MS describe their treatment journey. Get the link on the Treatment Discussion Tab: <http://ssshare.it/yZmU>'. The post includes a blue graphic with the text 'Get a firsthand perspective' and an icon of three stylized figures. Below the post, there are buttons for 'Like', 'Comment', and 'Share', along with a share count of 57 and 14 shares.

The right sidebar contains several sections: 'Health/Medical/Pharmaceuticals', a search bar for posts on the page, a notification that 17,304 people like the page, a 'Chat (20)' button, and an 'Invite friends to like this Page' button. The 'ABOUT' section provides information about the page, including a description: 'If you're here, you're likely impacted by MS. We welcome you to join the conversation, and share your hopes and dreams, beyond MS.' It also includes links to ask for the page's address, phone, and hours, and a website link: <http://www.LivingLikeYou.com/>. The 'APPS' section features a 'Community Guidelines' button. The 'PHOTOS' section displays a grid of various images related to the page's theme.



Like Comment Share

306 Top Comments

75 shares

Write a comment...

**Mary Devereux** Just was told my Ms is not compatible with my job head wrecking

Like Reply · October 13, 2015 at 3:11am

**Living Like You** So sorry to hear that, Mary.

Like Reply · October 13, 2015 at 6:55am

**Irma Meiers** a lot of difference!!

Like Reply · 1 · October 9, 2015 at 10:31am

View 5 more comments

**Living Like You**  
October 12, 2015

In need of some kitchen inspiration? Check out our recommendations for cookbooks that will be friendly to your MS and taste buds!  
<http://www.livinglikeyou.com/.../brain-food-a-guide-to-ms-fri...>



Living and Cooking Healthy with Multiple Sclerosis – Living Like You

Brain Food: A Guide to MS-Friendly Cookbooks

BIT.LY

Like Comment Share

258

83 shares

Write a comment...

**Living Like You**  
December 4, 2015

When "If it was fun, it wouldn't be called work" doesn't cut it: Tips for staying motivated at work:  
<http://www.livinglikeyou.com/.../job-getting-you-down-dos-and...>



VIDEOS



VISITOR POSTS

**David Brown**  
September 3 at 3:00pm  
BBC... Cancer treatment for MS patients gives 'remarkable' results...

**Curt Ehlinger**  
August 1 at 5:20pm  
I am part of an 18 person, 3,100 mile relay team across America this... See More

**Nina Triadafilidi**  
July 20 at 8:37am  
Great initiative.. Thank you !

LIKED BY THIS PAGE

English (US) · Français (Canada) · Español · Deutsch

Privacy · Terms · Advertising · Ad Choices · Cookies · More  
Facebook © 2016



## Appendix H – Study 1 Stimuli: Third Party Condition

**living like YOU™**  
@LivingLikeYou

**Home**  
About  
Photos  
Community Guidelines  
Likes  
Videos  
Posts  
[Create a Page](#)

**Living Like You**  
December 2, 2015 · 🌐

Watch as doctors and others living with MS describe their treatment journey. Get the link on the Treatment Discussion Tab: <http://ssshare.it/yZmU>

Get a firsthand perspective

Like Comment Share

57

14 shares

Write a comment...

**Living Like You**  
October 9, 2015 · 🌐

Nearly 700,000 people in Europe are living with multiple sclerosis. But that doesn't mean their lives are exactly the same. Learn how MS care differs across 25 different European countries here: <http://www.livinglikeyou.com/.../det.../ms-in-europe-infographic>

Health/Medical/Pharmaceuticals

Search for posts on this Page

17,304 people like this

Chat (20)

Invite friends to like this Page

**ABOUT**

If you're here, you're likely impacted by MS. We welcome you to join the conversation, with **NMSS** and share your hopes and dreams, beyond MS.

Ask for Living Like You's address

Ask for Living Like You's phone

Ask for Living Like You's hours

<http://www.LivingLikeYou.com/>

Impressum [v]

**APPS**

Community Guidelines

**PHOTOS**



Like Comment Share

306

Top Comments

75 shares



Write a comment...



Mary Devereux Just was told my Ms is not compatible with my job head wrecking

Like · Reply · October 13, 2015 at 3:11am



Living Like You So sorry to hear that, Mary.

Like · Reply · October 13, 2015 at 6:55am



Irma Meiers a lot of difference!!

Like · Reply · 1 · October 9, 2015 at 10:31am

View 5 more comments



Living Like You

October 12, 2015 ·

In need of some kitchen inspiration? Check out our recommendations for cookbooks that will be friendly to your MS and taste buds! <http://www.livinglikeyou.com/.../brain-food-a-guide-to-ms-fri...>



Living and Cooking Healthy with Multiple Sclerosis – Living Like You

Brain Food: A Guide to MS-Friendly Cookbooks

BIT.LY

Like Comment Share

258

63 shares



Write a comment...



Living Like You

December 4, 2015 ·

When "If it was fun, it wouldn't be called work" doesn't cut it. Tips for staying motivated at work:

<http://www.livinglikeyou.com/.../job-getting-you-down-dos-and...>



VIDEOS



VISITOR POSTS



David Brown

September 3 at 3:00pm

BBC... Cancer treatment for MS patients gives 'remarkable' results...

Like · Comment



Curt Ehlinger

August 1 at 5:20pm

I am part of an 18 person, 3,100 mile relay team across America this... See More

1

Like · Comment



Nina Triadafilidi

July 20 at 8:37am

Great initiative.. Thank you !

1

Like · Comment

LIKED BY THIS PAGE



National Multiple Sclerosis Society

Like

English (US) · Français (Canada) · Español · Deutsch

Privacy · Terms · Advertising · Ad Choices · Cookies · More · Facebook © 2016

## Appendix I – Study 1 Questionnaire

- 1) Please list any thoughts and feelings you experienced while reading the Facebook page. Write each thought on a separate line.

a) \_\_\_\_\_

b) \_\_\_\_\_

c) \_\_\_\_\_

d) \_\_\_\_\_

e) \_\_\_\_\_

f) \_\_\_\_\_

- 2) What do you believe is the purpose of this Facebook community?

---



---

- 3) Please rate this Facebook Community on the following dimensions:

Insincere	1	2	3	4	5	6	7	Sincere
Dishonest	1	2	3	4	5	6	7	Honest
Manipulative	1	2	3	4	5	6	7	Not manipulative
Pushy	1	2	3	4	5	6	7	Not pushy

- 4) Rate your agreement with the following statements:

- a) This Facebook Community is credible.

Strongly disagree	1	2	3	4	5	6	7	Strongly agree
-------------------	---	---	---	---	---	---	---	----------------

- b) The information on this Facebook Community is accurate.

Strongly disagree	1	2	3	4	5	6	7	Strongly agree
-------------------	---	---	---	---	---	---	---	----------------

- c) I can trust the information and people in this Facebook Community.

Strongly disagree	1	2	3	4	5	6	7	Strongly agree
-------------------	---	---	---	---	---	---	---	----------------

- d) While I viewed the Facebook page, it was pretty clear that the page was trying to influence my behavior.

Strongly disagree	1	2	3	4	5	6	7	Strongly agree
-------------------	---	---	---	---	---	---	---	----------------

- 5) Overall, this Facebook community is probably an excellent health information

provider.

Strongly disagree	1	2	3	4	5	6	7	Strongly agree
-------------------	---	---	---	---	---	---	---	----------------

- 6) I expect this Facebook community to perform its role of giving health information very effectively.

Strongly disagree	1	2	3	4	5	6	7	Strongly agree
-------------------	---	---	---	---	---	---	---	----------------

- 7) In general, this Facebook community is probably well qualified to provide health information and advice.

Strongly disagree	1	2	3	4	5	6	7	Strongly agree
-------------------	---	---	---	---	---	---	---	----------------

- 8) This Facebook community would probably be honest in how it deals with me.

Strongly disagree	1	2	3	4	5	6	7	Strongly agree
-------------------	---	---	---	---	---	---	---	----------------

- 9) Overall, I expect this Facebook community to be truthful.

Strongly disagree	1	2	3	4	5	6	7	Strongly agree
-------------------	---	---	---	---	---	---	---	----------------

- 10) I anticipate that this Facebook community would provide me factual information.

Strongly disagree	1	2	3	4	5	6	7	Strongly agree
-------------------	---	---	---	---	---	---	---	----------------

- 11) This Facebook community would probably honor any commitments it makes.

Strongly disagree	1	2	3	4	5	6	7	Strongly agree
-------------------	---	---	---	---	---	---	---	----------------

- 12) Please answer the following questions about yourself:

a) Age (in years): \_\_\_\_\_

b) Gender: ☐Female

☐Male

☐Other \_\_\_\_\_

☐Prefer not to say

13) How familiar are you with [disease]?

Not at all familiar	1	2	3	4	5	6	7	Very familiar
---------------------	---	---	---	---	---	---	---	---------------

14) Have you ever gone online for health information?

☐Yes ☐No

a) If yes, which sites have you consulted?

☐ Webmd

☐ Facebook

☐ Google

☐ Health Canada

☐ PubMed

☐ cdc.com

☐ myfitnesspal.com

☐ drugs.com

☐ medscape

☐ weightwatchers.com

☐ Other (please specify): \_\_\_\_\_

15) Was there a logo on the [Community] Facebook page?

☐Yes ☐No

a) If Yes, which organization's logo? \_\_\_\_\_

16) Who do you think the sponsor of the community is?

\_\_\_\_\_

17) How familiar are you with the organization represented by the logo?

Not at all familiar	1	2	3	4	5	6	7	Very familiar
---------------------	---	---	---	---	---	---	---	---------------

18) Were you aware of this Facebook community prior to the study?

☐Yes ☐No



## Appendix J – Study 2 SSRL Participant Consent Message

Title: Social Media Health and Wellness Study

This survey is designed to help us understand Social Media Health and Wellness Communities on Facebook. This information will help to identify people's perceptions regarding this topic. Participation in this survey is voluntary, and you can decide not to participate at any time, or choose not to answer any questions you don't feel comfortable with. Survey responses will remain anonymous. Since the survey is anonymous, once it is submitted it cannot be removed.

There are no known risks to participating in this survey; however, as with any online related activity the risk of breach of confidentiality is always possible.

This survey is hosted by Voxco, a Canadian-owned and managed company whose data is securely stored in Canada. Please consider printing this page for your records. This research project has been approved on ethical grounds by the University of Saskatchewan Research Ethics Board. Any questions regarding your rights as a participant may be addressed to that committee through the Research Ethics Office [ethics.office@usask.ca](mailto:ethics.office@usask.ca); (306) 966-2975. Out of town participants may call toll free (888) 966-2975.

In order to complete this survey, you may be required to answer certain questions; however, you are never obligated to respond and you may withdraw from the survey at any time by closing your internet browser.

By selecting next and completing this questionnaire, **your free and informed consent is implied** and indicates that you understand the above conditions to participate in this study.

Completion of the survey should take approximately 15 minutes.

## **Appendix K – Study 2 SSRL Recruitment Email**

Dear member of the Ekos research panel,

You are invited to participate in a survey on social media health and wellness communities. This is an ethics-approved, University of Saskatchewan research project looking to gain insight into the effectiveness of social media health and wellness communities.

Please rest assured that this is voluntary and your answers are completely confidential (this means that no individual will be associated with the survey's results - rather, all of the results will be combined to protect the confidentiality of each respondent).

The researchers at the University of Saskatchewan would like to thank you for your interest in their research and your participation.

Ekos, Inc.

## **Appendix L – Script Study 2**

Following your diagnosis of Type II Diabetes, imagine you have joined an online health and wellness community on Facebook called *Diabetes Challenge* that is made up of members like you who are all affected in some way by this disease. This community regularly posts information about living with the disease, support, lifestyle and exercise routines, contests for giveaways, and suggestions for how to manage the disease yourself. There are many active members who have become very close because of this community.

Please imagine you are an active member of this community and you often read, share, and like the published posts, and interact with other members.

Proceed to the next page and imagine that you are viewing recent posts from this community.

## **Appendix M – Prime**

Please keep in mind that sometimes consumers create these types of communities. Other times pharmaceutical companies create these communities, both to help consumers as well as to help their business. Sometimes the companies indicate their involvement with the online communities, and sometimes they do not.

## Appendix N – Study 2 Stimuli: No Logo Condition

The screenshot shows the Facebook interface for the 'Diabetes Challenge' page. The top navigation bar includes the Facebook logo, a search bar, and links for Home, Friends, and Groups. The page header features a large red banner with the text 'SHARE YOUR STORY!' in white, bold, sans-serif font. Below the banner, the page name 'Diabetes Challenge' and its handle '@diabeteschallenge' are displayed. A left-hand navigation menu lists options: Home, About, Photos, Likes, Commenting Guidelines, Videos, Adverse Event Reporting, and Posts. A green 'Create a Page' button is located below the menu. The main content area shows two posts from the 'Diabetes Challenge' page. The first post, dated October 23, 2015, contains text about setting individualized goals for managing diabetes (ABCs: A1C, blood glucose, blood pressure, and cholesterol). The second post, dated December 7, 2016, features a video of S. Eptha Merkersen discussing her treatment plan. The right-hand sidebar includes a 'Health/Medical/Pharmaceuticals' category, a search bar for posts on the page, and information about 33,655 likes and 7 active chats. Below this, an 'ABOUT' section provides links to the page's address, phone, and hours, along with the website URL 'http://www.DiabetesChallenge.com/'. Further down, the 'APPS' section includes links to 'Commenting Guidelines' and 'Adverse Event Reporting'. The 'PHOTOS' section at the bottom displays a grid of six motivational images with text such as 'AIM FOR THE MOON. IF YOU MISS, YOU MAY HIT A STAR.' and 'YOU CAN NEVER QUIT. WINNERS NEVER QUIT AND QUITTERS NEVER WIN.'

Diabetes Challenge  
@diabeteschallenge

Home  
About  
Photos  
Likes  
Commenting Guidelines  
Videos  
Adverse Event Reporting  
Posts  
Create a Page

SHARE YOUR STORY!

Like Message Save More

Learn More

Health/Medical/Pharmaceuticals

Search for posts on this Page

33,655 people like this  
Chat (7)  
Invite friends to like this Page

ABOUT

Join Diabetes Challenge, a program to urge people with type 2 diabetes to know their A1C and set and attain their blood sugar goals.

Ask for Diabetes Challenge's address  
Ask for Diabetes Challenge's phone  
Ask for Diabetes Challenge's hours  
http://www.DiabetesChallenge.com/

APPS

Commenting Guidelines  
Adverse Event Reporting

PHOTOS

AIM FOR THE MOON. IF YOU MISS, YOU MAY HIT A STAR.  
YOU JUST CAN'T BEAT THE PERSON WHO NEVER GIVES UP  
YOU CAN NEVER QUIT. WINNERS NEVER QUIT AND QUITTERS NEVER WIN.

Diabetes Challenge  
October 23, 2015

Work with your doctor to set individualized goals to manage the ABCs of diabetes—that's A for A1C, also known as blood glucose, B for blood pressure and C for cholesterol. Together, you can come up with a management plan that includes diet, exercise and medicine (if prescribed).

Like Comment Share

57

14 shares

Write a comment...

Fitnessini love the comments everyone  
Like · Reply · October 23, 2015 at 1:01pm

Diabetes Challenge  
December 7, 2016

S. Eptha Merkersen works with her doctor to stick to an individualized treatment plan. How do you manage your type 2 diabetes? Share with us at [www.DiabetesChallenge.com](http://www.DiabetesChallenge.com).

250 Views

Like Comment Share

30

3 shares

Write a comment...

Diabetes Challenge

November 14, 2016

Today is World Diabetes Day. Do you know someone living with diabetes? Encourage them to share their story today!

[www.DiabetesChallenge.com](http://www.DiabetesChallenge.com) #ThisIsDiabetes

Like Comment Share

96

Top Comments

21 shares

Write a comment...

Jeri Thrall

I am a heart bypass survivor who now has type2 diabetes. Medicine is expensive and you have to poke your fingers daily. Diet change and exercise is the key.

Like · Reply · 4 · November 14, 2016 at 2:22pm

Barbara Niemerg

I have diabetes. My Dad had it and lost a foot and then his life with it. My Mom had it and I fixed her needles every day. My brother had it and was his main cause of death. I now have it and prick my finger everyday and take meds. Diet and exercise are key.

Like · Reply · 1 · November 14, 2016 at 4:14pm

1 Reply

View 12 more comments

Diabetes Challenge

December 28, 2016 at 8:33am

Happy Holidays! Winter is a time to spend with friends and family. If you know someone with type 2 diabetes, check out our website to encourage your loved ones to get to their A1C goal:

[www.DiabetesChallenge.com](http://www.DiabetesChallenge.com).

VIDEOS

71 5

231 7

VISITOR POSTS

Frances Kennedy

July 30 at 4:40pm

There are so many helpful things for type 2. Why are the type 1's left out? Very tired of this!

8 5

Like Comment

Carol Hicks Walters

July 4 at 4:31pm

Type 2 here but I having trouble

6 5

Like Comment

Deanne Stellmack-Oehlert

June 28 at 9:04pm

LIKED BY THIS PAGE

English (US) · Français (Canada) · Español · Deutsch

+

Privacy · Terms · Advertising · Ad Choices · Cookies · More

Facebook © 2016

70

## Appendix O – Study 2 Stimuli: Pfizer Condition

The image is a screenshot of the Diabetes Challenge Facebook page. At the top, a red banner with white text reads "SHARE YOUR STORY!" and the Pfizer logo is in the bottom right corner. Below the banner, the page header includes a search bar, navigation links (Home, etc.), and a "Learn More" button. The left sidebar contains the page name "Diabetes Challenge @diabeteschallenge" and a menu with options like Home, About, Photos, Likes, Commenting Guidelines, Videos, Adverse Event Reporting, and Posts. A green "Create a Page" button is also present. The main content area shows two posts. The first post, dated October 23, 2015, is a text-based announcement about setting individualized goals for managing diabetes (A1C, blood pressure, cholesterol) and includes a "Like" button and 57 likes. The second post, dated December 7, 2016, features a video of S. Epatha Merkersen talking to a doctor, with a "250 Views" count and "Like", "Comment", and "Share" buttons. The right sidebar contains a "Health/Medical/Pharmaceuticals" category, a search bar for posts on the page, a "Chat (7)" button, and links to "About" information such as "Join Diabetes Challenge", "Ask for Diabetes Challenge's address", "Ask for Diabetes Challenge's phone", "Ask for Diabetes Challenge's hours", and the website URL "http://www.DiabetesChallenge.com/". Below the "ABOUT" section are links to "Commenting Guidelines", "Adverse Event Reporting", and "PHOTOS". The "PHOTOS" section displays a grid of six motivational images with text like "AIM FOR THE MOON. IF YOU MISS, YOU MAY HIT A STAR.", "YOU JUST CAN'T BEAT THE PERSON WHO NEVER GIVES UP", and "YOU CAN NEVER QUIT. NEVER GIVE UP AND QUITTERS NEVER WIN."



30

3 shares

Write a comment...

**Diabetes Challenge**  
November 14, 2016 · 🌐

Today is World Diabetes Day. Do you know someone living with diabetes? Encourage them to share their story today! [www.DiabetesChallenge.com](http://www.DiabetesChallenge.com) #ThisIsDiabetes



Like Comment Share

96

21 shares

Write a comment...

**Jeri Thrall** I am a heart bypass survivor who now has type2 diabetes. Medicine is expensive and you have to poke your fingers daily. Diet change and exercise is the key.  
Like · Reply · 4 · November 14, 2016 at 2:22pm

**Barbara Niemerg** I have diabetes. My Dad had it and lost a foot and then his life with it. My Mom had it and I fixed her needles every day. My brother had it and was his main cause of death. I now have it and prick my finger everyday and take meds. Diet and exercise are key.  
Like · Reply · 1 · November 14, 2016 at 4:14pm

1 Reply

View 12 more comments

**Diabetes Challenge**  
December 28, 2016 at 8:33am · 🌐

Happy Holidays! Winter is a time to spend with friends and family. If you know someone with type 2 diabetes, check out our website to encourage your loved ones to get to their A1C goal: [www.DiabetesChallenge.com](http://www.DiabetesChallenge.com).




VIDEOS




VISITOR POSTS

**Frances Kennedy**  
July 30 at 4:40pm · 🌐

There are so many helpful things for type 2. Why are the type 1's left out? Very tired of this!

8 5

Like Comment

**Carol Hicks Walters**  
July 4 at 4:31pm · 🌐

Type 2 here but I having trouble

6 5

Like Comment

**Deanne Stellmack-Oehlert**  
June 28 at 9:04pm · 🌐

LIKED BY THIS PAGE

**Pfizer** Pfizer · Like

English (US) · Français (Canada) · Español · Deutsch

Privacy · Terms · Advertising · Ad Choices · Cookies · More

Facebook © 2016



## Appendix P – Study 2 Questionnaire

- 1) Please list any thoughts and feelings you experienced while reading the Facebook page. Write each thought on a separate line.

- a) \_\_\_\_\_
- b) \_\_\_\_\_
- c) \_\_\_\_\_
- d) \_\_\_\_\_

- 2) What do you believe is the purpose of this Facebook Community?
- 
- 

- 3) Please rate this Facebook Community on the following dimensions:

Insincere	1	2	3	4	5	6	7	Sincere
Dishonest	1	2	3	4	5	6	7	Honest
Manipulative	1	2	3	4	5	6	7	Not manipulative
Pushy	1	2	3	4	5	6	7	Not pushy

- 4) Rate your agreement with the following statements:

- a) This Facebook Community is credible.

Strongly disagree	1	2	3	4	5	6	7	Strongly agree
-------------------	---	---	---	---	---	---	---	----------------

- b) The information on this Facebook Community is accurate.

Strongly disagree	1	2	3	4	5	6	7	Strongly agree
-------------------	---	---	---	---	---	---	---	----------------

- c) I can trust the information in this Facebook Community.

Strongly disagree	1	2	3	4	5	6	7	Strongly agree
-------------------	---	---	---	---	---	---	---	----------------

- d) I can trust the people in this Facebook Community.

Strongly disagree	1	2	3	4	5	6	7	Strongly agree
-------------------	---	---	---	---	---	---	---	----------------

- 5) Overall, this Facebook community is probably an excellent health information provider.

Strongly disagree	1	2	3	4	5	6	7	Strongly agree
-------------------	---	---	---	---	---	---	---	----------------

- 6) I expect this Facebook community to perform its role of giving health information very effectively.

Strongly disagree	1	2	3	4	5	6	7	Strongly agree
-------------------	---	---	---	---	---	---	---	----------------

- 7) In general, this Facebook community is probably well qualified to provide health information and advice.

Strongly disagree	1	2	3	4	5	6	7	Strongly agree
-------------------	---	---	---	---	---	---	---	----------------

- 8) This Facebook community would probably be honest in how it deals with me.

Strongly disagree	1	2	3	4	5	6	7	Strongly agree
-------------------	---	---	---	---	---	---	---	----------------

- 9) Overall, I expect this Facebook community to be truthful.

Strongly disagree	1	2	3	4	5	6	7	Strongly agree
-------------------	---	---	---	---	---	---	---	----------------

- 10) I anticipate that this Facebook community would provide me factual information.

Strongly disagree	1	2	3	4	5	6	7	Strongly agree
-------------------	---	---	---	---	---	---	---	----------------

- 11) This Facebook community would probably honor any commitments it makes.

Strongly disagree	1	2	3	4	5	6	7	Strongly agree
-------------------	---	---	---	---	---	---	---	----------------

- 12) Assuming the *Diabetes Challenge* Facebook community was available for you to access, please rate your level of agreement with each statement.

- i. I would visit this community again to get information:

Strongly disagree	1	2	3	4	5	6	7	Strongly agree
-------------------	---	---	---	---	---	---	---	----------------

- ii. I would depend on the information or advice provided by this Facebook Community:

Strongly disagree	1	2	3	4	5	6	7	Strongly agree
-------------------	---	---	---	---	---	---	---	----------------

- iii. I would recommend this Facebook Community to a friend or family member:

Strongly disagree	1	2	3	4	5	6	7	Strongly agree
-------------------	---	---	---	---	---	---	---	----------------

- iv. I would comment on posts from this Facebook Community:

Strongly disagree	1	2	3	4	5	6	7	Strongly agree
-------------------	---	---	---	---	---	---	---	----------------

- v. I would share posts from this Community on my Facebook wall:

Strongly disagree	1	2	3	4	5	6	7	Strongly agree
-------------------	---	---	---	---	---	---	---	----------------

- vi. I would talk to my doctor about information from this Community:

Strongly disagree	1	2	3	4	5	6	7	Strongly agree
-------------------	---	---	---	---	---	---	---	----------------

13) Who do you think the sponsor of the community is?

\_\_\_\_\_

14) To what extent do you think being an active member of a community like *Diabetes Challenge* could help you to manage the following symptoms and health problems caused by diabetes?:

Fatigue:

Not at all Confident	1	2	3	4	5	6	7	8	9	10	Totally Confident
-------------------------	---	---	---	---	---	---	---	---	---	----	----------------------

Physical discomfort or pain:

Not at all Confident	1	2	3	4	5	6	7	8	9	10	Totally Confident
-------------------------	---	---	---	---	---	---	---	---	---	----	----------------------

Emotional distress:

Not at all Confident	1	2	3	4	5	6	7	8	9	10	Totally Confident
-------------------------	---	---	---	---	---	---	---	---	---	----	----------------------

15) Was there a company's logo on the [Community] Facebook page? (Other than the Facebook logo)

☐ Yes ☐ No

a) If Yes, which company's logo? \_\_\_\_\_

b) How familiar are you with the organization represented by this logo?

Not at all familiar	1	2	3	4	5	6	7	Very familiar
---------------------	---	---	---	---	---	---	---	---------------

16) Please answer the following questions about yourself:

a) Age (in years): \_\_\_\_\_

b) Gender: ☐ Female

☐ Male

☐ Other \_\_\_\_\_

☐ Prefer not to say

17) How familiar are you with diabetes?

Not at all familiar	1	2	3	4	5	6	7	Very familiar
---------------------	---	---	---	---	---	---	---	---------------

18) Have you ever gone online for health information?

☐ Yes ☐ No

19) How often do you go online for health information? (Please check the box that best describes your average usage frequency)

☐ Multiple times daily

☐ Once a day

☐ Less than once a week

☐ Less than once a month

☐ Never

20) Have you ever consulted a Facebook page for health information?

☐ Yes ☐ No

21) How often do you use social media? (Please check the box that best describes

your average usage frequency)

- ☐ Multiple times daily
- ☐ Once a day
- ☐ Less than once a week
- ☐ Less than once a month
- ☐ never

22) Please give your opinion about the company Pfizer by answering the following questions.

a) Pfizer is:

Not at all trustworthy	1	2	3	4	5	6	7	Very trustworthy
Not at all honest	1	2	3	4	5	6	7	Very honest
Cares more about making money	1	2	3	4	5	6	7	Cares more about helping customers

b) Compared to the average consumer, how knowledgeable are you about Pfizer?

Significantly less knowledgeable	1	2	3	4	5	6	7	Significantly more knowledgeable
----------------------------------	---	---	---	---	---	---	---	----------------------------------

23) Please rate your agreement with this statement:

When viewing this Facebook page, I felt as though I was a member of the community.

Strongly disagree	1	2	3	4	5	6	7	Strongly agree
-------------------	---	---	---	---	---	---	---	----------------

24) Were you aware of this Facebook community prior to the study?

- ☐ Yes
- ☐ No

## Reference List

- Akdoğan, M. Sukru, and Basar Altuntaş (2015), "Covert Marketing Strategy and Techniques." *Procedia - Social and Behavioral Sciences* 207: 135-48.
- American Marketing Association (2017) "Statement of Ethics." Available at: <https://www.ama.org/AboutAMA/Pages/Statement-of-Ethics.aspx> (accessed 11 April 2017).
- Bandura, Albert (1994), "Self-efficacy." In *Encyclopedia of human behavior*, (Vol. 4, pp. 71-81), V. S. Ramachaudran, ed. New York: Academic Press. (Reprinted in H. Friedman [Ed.], *Encyclopedia of mental health*. San Diego: Academic Press, 1998).
- Campbell, Margaret C., and Amna Kirmani (2000), "Consumers' Use of Persuasion Knowledge: The Effects of Accessibility and Cognitive Capacity on Perceptions of an Influence Agent." *Journal of Consumer Research* 27, no. 1: 69-83.
- Campbell, Margaret C., and Amna Kirmani (2008), "I Know What You're Doing and Why You're Doing It: The Use of Persuasion Knowledge Model in Consumer Research." In *Handbook of Consumer Psychology*, 549-69. New York: Lawrence Erlbaum Associates.
- Campbell, Margaret C., Gina S. Mohr, and Peeter W.J. Verlegh (2013), "Can Disclosures Lead Consumers to Resist Covert Persuasion? The Important Roles of Disclosure Timing and Type of Response." *Journal of Consumer Psychology* 23, no. 4: 483-95.
- Chu, Shu-Chuan, and Yoojung Kim (2011), "Determinants of consumer engagement in electronic word-of-mouth (eWOM) in social networking sites." *International journal of Advertising*, 30(1), 47-75.
- Cowley, Elizabeth, and Chris Barron (2008), "When Product Placement Goes Wrong: The Effects of Program Liking and Placement Prominence." *Journal of Advertising* 37, no. 1: 89-98.
- Cunha, Marcus, Mark R. Forehand, and Justin W. Angle (2015), "Riding Coattails: When Co-Branding Helps versus Hurts Less-Known Brands." *Journal of Consumer Research* 41, no. 5: 1284-300.
- Delbaere, Marjorie, and Erin Willis (2015), "Direct-to-consumer Advertising and the Role of Hope." *Journal of Medical Marketing* 15, no. 1-2: 26-38.
- Diamant, Nicole (2017), "Healthier Together: 5 Questions With Smart Patients Founder Roni Zeiger." Brandchannel. February 09. Accessed April 12, 2017. <http://www.brandchannel.com/2016/10/18/5-questions-smart-patients-101816/>.

- Food & Drug Administration (FDA) (2015), "Prescription Drug Advertising - Basics of Drug Ads." *U S Food and Drug Administration*. Accessed June 15, 2017.  
<https://www.fda.gov/drugs/resourcesforyou/consumers/prescriptiondrugadvertising/ucm072077.htm>.
- Field, Andy P. (2013), *Discovering Statistics Using IBM SPSS Statistics: And Sex and Drugs and Rock'n'roll*. Los Angeles, Calif.: SAGE.
- Fransen, Marieke, Peeter Verlegh, Amna Kirmani, and Edith Smit (2015), "A Typology of Consumer Strategies for Resisting Advertising, and a Review of Mechanisms for Countering Them." *International Journal of Advertising* 34, no. 1: 6.
- Friestad, Marian and Peter Wright (1994), "The Persuasion Knowledge Model: How People Cope with Persuasion Attempts," *Journal of Consumer Research*, 21 (1), 1-31.
- Friestad, Marian, and Peter Wright, (1999). "Everyday persuasion knowledge." *Psychology & Marketing* 16, no. 2: 185-194.
- Federal Trade Commission (FTC) (2015), *Enforcement Policy Statement on Deceptively Formatted Advertisements*.  
[https://www.ftc.gov/system/□es/documents/public\\_statements/896923/151222deceptiveenforcement.pdf](https://www.ftc.gov/system/□es/documents/public_statements/896923/151222deceptiveenforcement.pdf).
- Ham, Chang-Dae, Michelle Nelson, and Susmita Das (2015), "How to Measure Persuasion Knowledge." *International Journal of Advertising* 34, no. 1: 17.
- Hibbert, Sally, Andrew Smith, Andrea Davies, and Fiona Ireland (2007), "Guilt Appeals: Persuasion Knowledge and Charitable Giving." *Psychology and Marketing* 24, no. 8: 723-42.
- Huh, Jisu, and Wonsun Shin (2015), "Consumer Responses to Pharmaceutical-company-sponsored Disease Information Websites and DTC Branded Websites." *International Journal of Pharmaceutical and Healthcare Marketing* 9, no. 4: 306-29.
- Isaac, Mathew S., and Kent Grayson (2016), "Beyond Skepticism: Can Accessing Persuasion Knowledge Bolster Credibility?" *Journal of Consumer Research*, Ucw063.
- James, David (2005), "Guilty through Association: Brand Association Transfer to Brand Alliances." *Journal of Consumer Marketing* 22, no. 1: 14-24.

- Johnson, Devon S., and Ben Lowe (2015), "Emotional Support, Perceived Corporate Ownership and Skepticism toward Out-groups in Virtual Communities." *Journal of Interactive Marketing* 29: 1-10.
- Laczniak, Gene, and Patrick Murphy (2006), "Normative Perspectives for Ethical and Socially Responsible Marketing." *Journal of Macromarketing* 26, no. 2: 154-77.
- Laran, Juliano, Amy N. Dalton, and Eduardo B. Andrade (2011), "The Curious Case of Behavioral Backlash: Why Brands Produce Priming Effects and Slogans Produce Reverse Priming Effects." *Journal of Consumer Research* 37, no. 6: 999-1014.
- Law, Michael R., Sumit R. Majumdar, and Stephen B. Soumerai (2008), "Effect of Illicit Direct to Consumer Advertising on Use of Etanercept, Mometasone, and Tegaserod in Canada: Controlled Longitudinal Study." *BMJ* 337: BMJ, 2 September 2008, Vol.337.
- Liang, Bryan A., and Timothy K. Mackey (2011), "Prevalence and global health implications of social media in direct-to-consumer drug advertising." *Journal of Medical Internet Research*, 13(3), e64.
- Main, Kelley J., Darren W. Dahl, and Peter R. Darke (2007), "Deliberative and Automatic Bases of Suspicion: Empirical Evidence of the Sinister Attribution Error." *Journal of Consumer Psychology* 17, no. 1: 59-69.
- Marshall, Ellen. (n.d.), *The Statistics Tutor's Quick Guide to Commonly Used Statistical Tests*. University of Sheffield. StatsTutor. Edited by Jean Russel. Accessed December 4, 2016. [www.statstutor.ac.uk](http://www.statstutor.ac.uk).
- McAlexander, James H., John W. Schouten, and Harold F. Koenig (2002), "Building Brand Community." *Journal of Marketing* 66, no. 1: 38-54.
- Medical Marketing & Media (2015), *The Healthcare Brand Manager's Guide to Content Marketing*. Haymarket Media.
- Milne, George R., Shalini Bahl, and Andrew Rohm (2008), "Toward a Framework for Assessing Covert Marketing Practices." *Journal of Public Policy & Marketing* 27, no. 1: 57-62.
- Muniz, Jr., Albert M., and Thomas C. O'Guinn (2001), "Brand Community." *Journal of Consumer Research* 27, no. 4: 412-32.
- Otnes, Cele C., Behice Ece Ilhan, and Atul Kulkarni (2012), "The Language of Marketplace Rituals: Implications for Customer Experience Management." *Journal of Retailing* 88, no. 3: 367-83.



- Ritter, Philip L., and Kate Lorig (2014), "The English and Spanish Self-Efficacy to Manage Chronic Disease Scale Measures Were Validated Using Multiple Studies." *Journal of Clinical Epidemiology* 67, no. 11: 1265-273.
- Rotfeld, Herbert (2008), "The Stealth Influence of Covert Marketing and Much Ado About What May Be Nothing." *Journal of Public Policy & Marketing* 27, no. 1: 63.
- Scott Rader, Charles, Zahed Subhan, Clinton D. Lanier, Roger Brooksbank, Sandra Yankah, and Kristin Spears (2014), "CyberRx." *International Journal of Pharmaceutical and Healthcare Marketing* 8, no. 2: 193.
- Simonin, Bernard L., and Julie A. Ruth (1998), "Is a Company Known by the Company It Keeps? Assessing the Spillover Effects of Brand Alliances on Consumer Brand Attitudes." *Journal of Marketing Research* 35, no. 1: 30-42.
- Tyrawski, Jennifer, and David C. DeAndrea (2015), "Pharmaceutical Companies and Their Drugs on Social Media: A Content Analysis of Drug Information on Popular Social Media Sites". *Journal of Medical Internet Research*, 17(6), e130.  
<http://doi.org/10.2196/jmir.4357>
- Wang, Zuoming, Joseph B. Walther, Suzanne Pingree, and Robert P. Hawkins (2008), "Health Information, Credibility, Homophily, and Influence via the Internet: Web Sites versus Discussion Groups." *Health Communication* 23, no. 4: 358-68.
- Wei, Mei-Ling, Eileen Fischer, and Kelley J. Main (2008), "An Examination of the Effects of Activating Persuasion Knowledge on Consumer Response to Brands Engaging in Covert Marketing." *Journal of Public Policy & Marketing* 27, no. 1: 34-44.
- Wojdyski, Bartosz W., and Nathaniel J. Evans (2015), "Going Native: Effects of Disclosure Position and Language on the Recognition and Evaluation of Online Native Advertising." *Journal of Advertising*, 1-12.
- Wojdyski, Bartosz W., Nathaniel J. Evans, and Mariea Grubbs Hoy (2017), "Measuring Sponsorship Transparency in the Age of Native Advertising." *Journal of Consumer Affairs*, 01.
- Wright, Peter (1986), "Presidential Address Schemer Schema: Consumers' Intuitive Theories About Marketers' Influence Tactics", in NA - *Advances in Consumer Research* Volume 13, Provo, UT: Association for Consumer Research, Pages: 1-3
- Wright, Peter (2002), "Marketplace Metacognition and Social Intelligence." *Journal of Consumer Research* 28, no. 4 (2002): 677-82.